SANYO

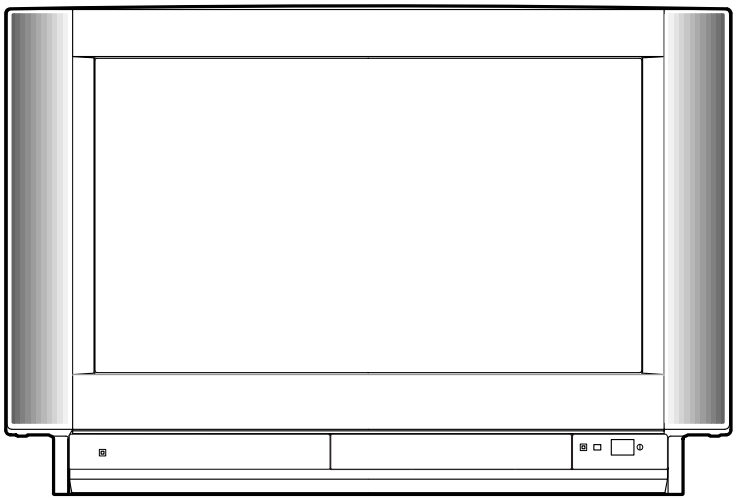
ColourTelevision Service Manual

CE32WH3-F

Model CE32WH3-F

Service Ref. No. CE32WH3-F-01

PRODUCT CODE: 111340310
ORIGINAL VERSION: Chassis Series: WB5



Give complete “SERVIC E REF. NO.” for parts order or servicing. It is shown on the rating plate at the cabinet back of the unit.

Note
This TV receiver will not work properly in foreign countries where the television transmission system and power source differ from the design specification. Refer to the specifications for the design specifications.

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Part No. SKSM0325 F7YLV SEPT 1999

SAFETY PRECAUTION

1: An isolation transformer should be connected in the power line between the receiver and the AC line when a service is performed on the primary of the converter transformer of the set.

2: Comply with all caution and safety-related notes provided on the cabinet back, inside the cabinet, on the chassis or the picture tube.

3: When replacing a chassis in the cabinet, always be certain that all the protective devices are installed properly, such as, control knobs, adjustment covers or shields, barriers, isolation resistor-capacitor networks etc. Before returning any television to the customer, the service technician must be sure that it is completely safe to operate without danger of electrical shock.

X-RADIATION PRECAUTION

The primary source of X-RADIATION in the television receiver is the picture tube. The picture tube is specially constructed to limit X-RADIATION emissions. For continued X-RADIATION protection, the replacement tube must be the same type as the original including suffix letter. Excessive high voltage may produce potentially hazardous X-RADIATION. To avoid such hazards, the high voltage must be maintained within specified limit. Refer to this service manual, high voltage adjustment for specific high voltage limit. If high voltage exceeds specified limits, take necessary corrective action. Carefully follow the instructions for +B1 volt power supply adjustment, and high voltage adjustment to maintain the high voltage within the specified limits.

PRODUCT SAFETY NOTICE

Product safety should be considered when a component replacement is made in any area of a receiver. Components indicated by mark ⚠ in the parts list and the schematic diagram designate components in which safety can be of special significance. It is particularly recommended that only parts designated on the parts list in this manual be used for component replacement designated by mark ⚠. No deviations from resistance wattage or voltage ratings may be made for replacement items designated by mark ⚠.

SPECIFICATIONS

Power source	AC 220~240V, 50Hz
Television system	System B/G, D/K, I, L/L'
Colour system	PAL/SECAM/NTSC4.43 on air NTSC3.58 in AV mode
Channel coverage	VHF: E2-E12, A-H, H1, H2, F2-F10, R1-R12 UHF: 21-69, F21-F69 CATV: X, Y, Z, Z+1, Z+2, S1-S41, B-Q
Aerial input impedance	75ohm
AV terminal	
21-pin terminals	AV1: CENELEC Standard with RGB AV2: CENELEC Standard with S-inputs AV3: CENELEC Standard
Front AV terminals	AV3: RCA Terminal, Video and Audio(L/R) Input
Sound output Main L/R (Continuous)(watts)	10.0 x 2
Picture tubes(inches)	32
Dimensions(WxHxD mm)	876 x 584 x 556
Weight (kg)	50kg

CHASSIS BLOCK DIAGRAMS

This is a diagram for all models and therefore differs slightly from the actual block diagram.

Outline

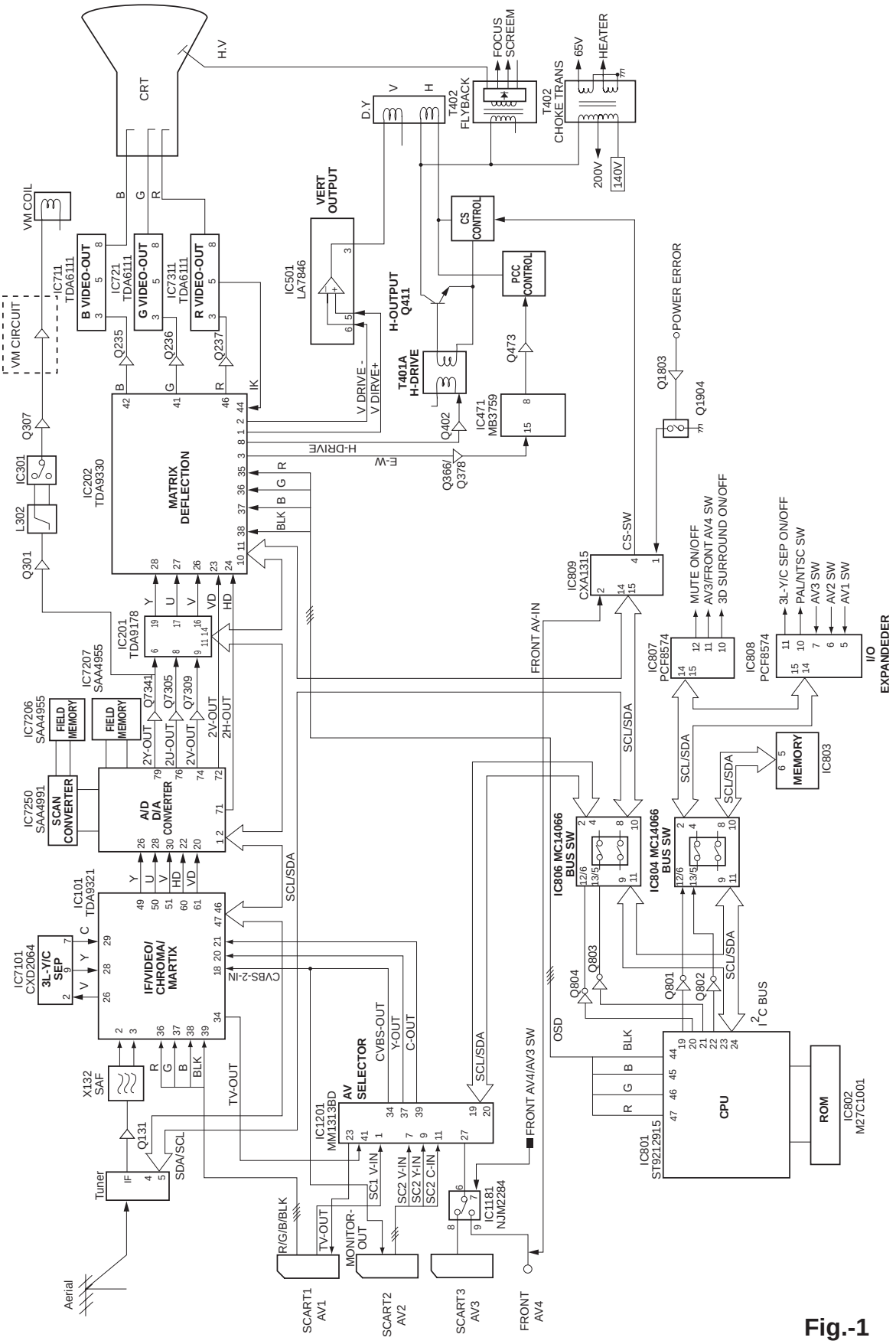


Fig.-1

Video signal routeing

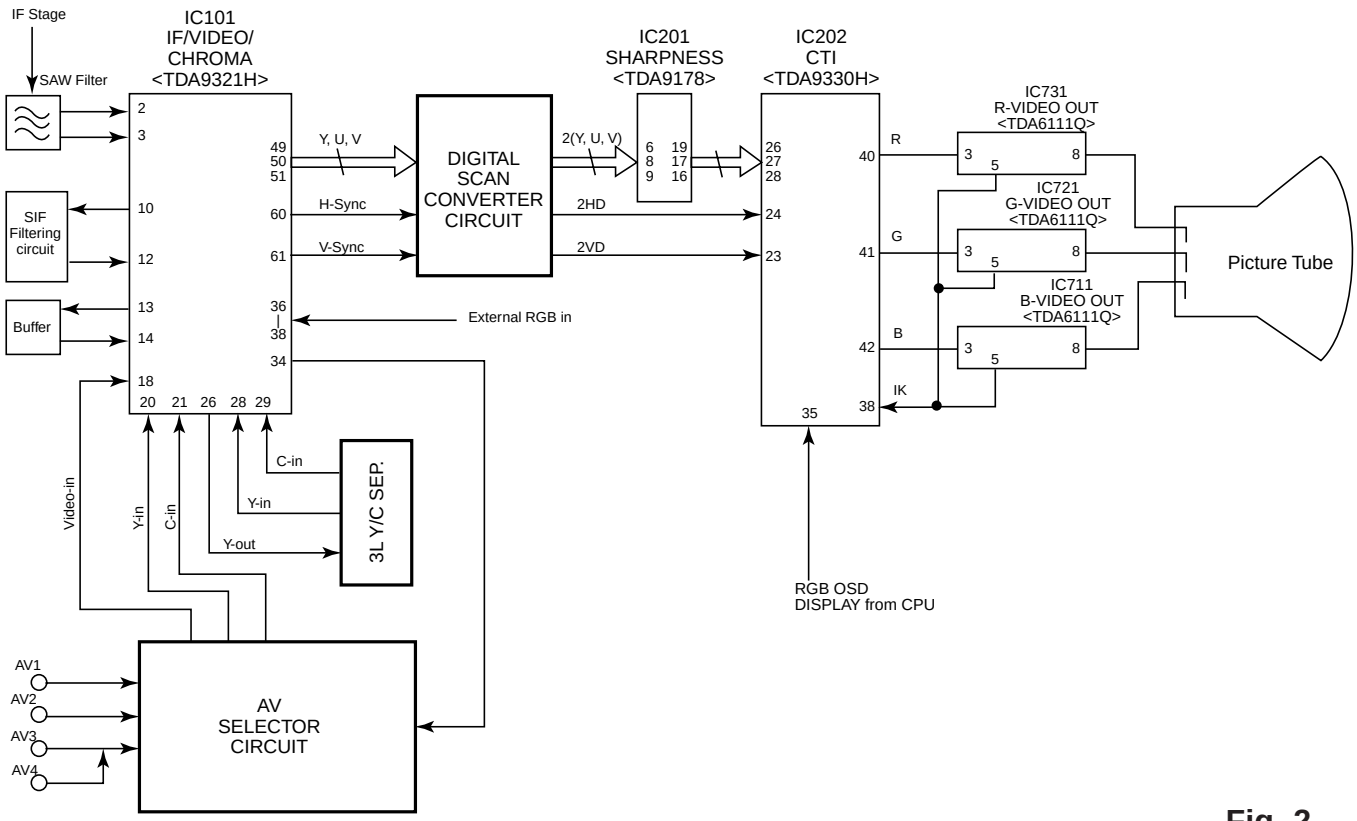


Fig.-2

Audio signal routeing

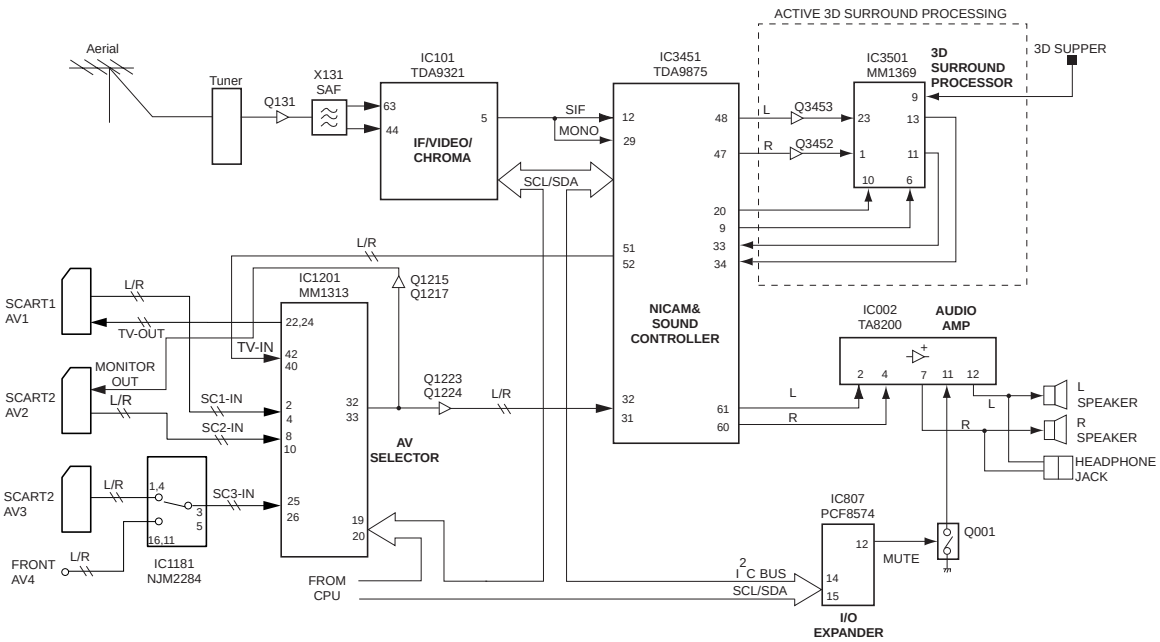


Fig.-3

System control

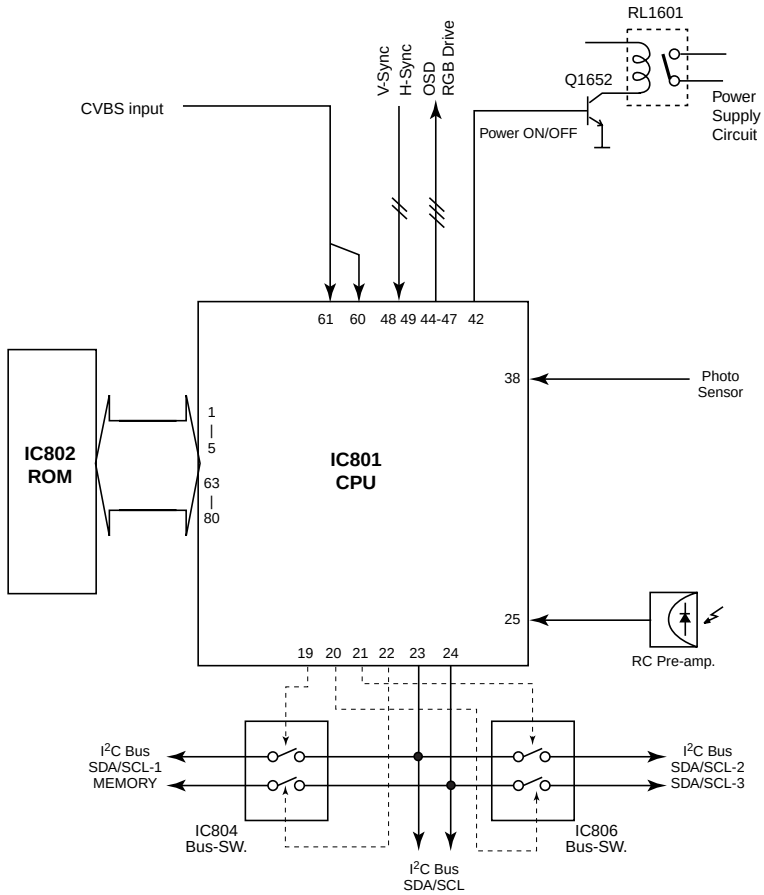


Fig.-4

Deflection circuit

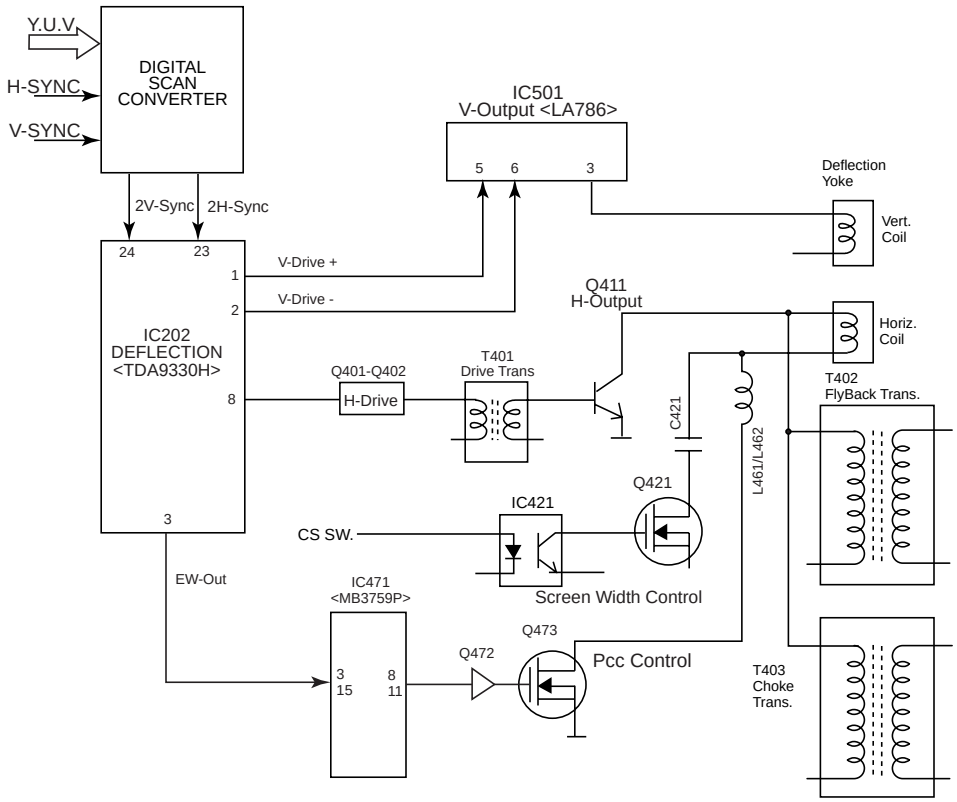


Fig.-5

F7YLV

100Hz Digital Scan Converter circuit

100Hz converter circuit consists of the following ICs.
- SAA4977H
  A/D, D/A, Timing generator
- SAA4991WP
  100Hz converting processor
- SAA4955TJ x2
  1.9Mbit field memory
-MC74HC4046AF
  PLL(Phase Locked Loop)

The Y/U/V signals decoded in the HOP IC (IC101) are sent to the scan converter circuit. The Y/U/V signals are sent to SAA4977H through the AC coupling capacitors and converted to 8bit digital data with 16MHz sampling clock at the A/D converting stage in the IC respectively. SAA4977H has built-in L.P.F. and the input stage for A/D conversion, so no external L.P.F. are required. The digitalised U/V signals are compressed with 1 by 4 at SAA4977H and sent to the field memory IC, SAA4955T as the 8bit Y-signal and 4bit C-signal data stream. Two fields picture information are always maintained by two field memory IC, SAA4955TJ.

SAA4991WP creates a 100Hz converted field picture information to display next field from these 2 field picture information, and sends this to SAA4977H. There are two ways to create a new field picture information, the one is creating the compensation data by detecting the motion image in

Digital scan circuit

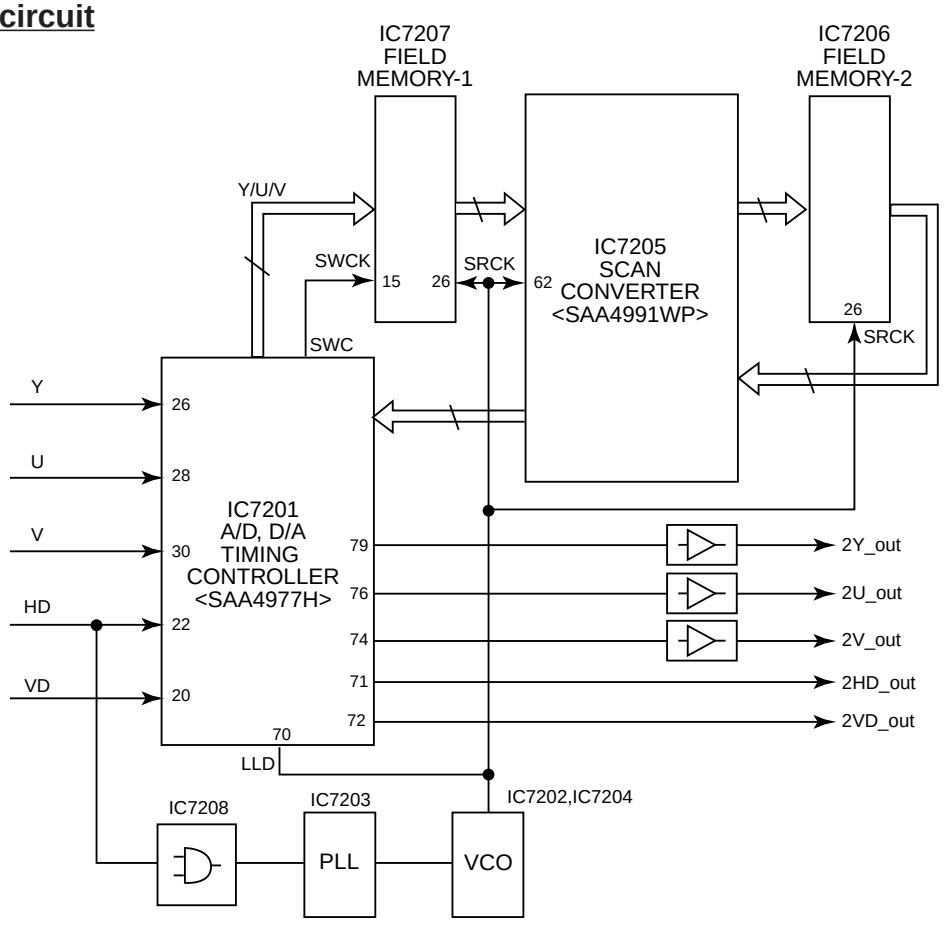
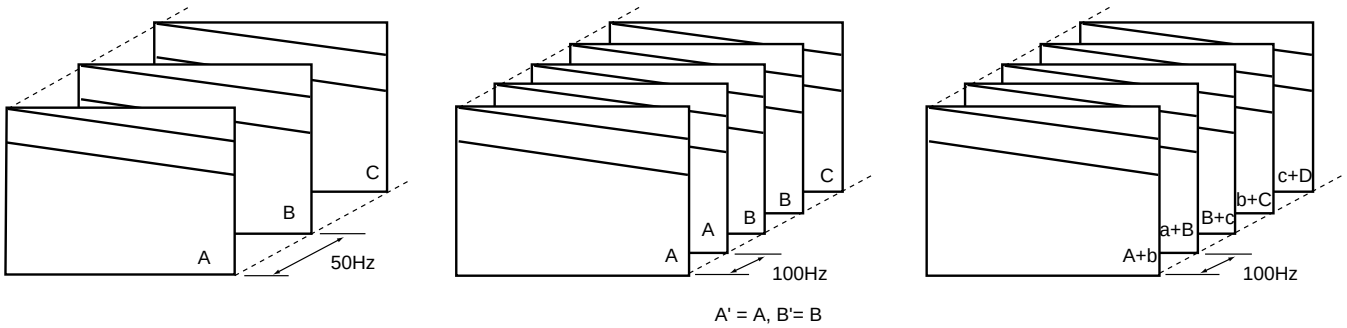


Fig.-7



(a) Normal Scan (b) Normal Double Scan (C) Digital Double Scan

Fig.-8

the fields and other one is simply reading out field data twice with double scanning frequency. In the SAA4977H, the converted 8bit Y-signal is added sharpness processing and the converted 8bit U/V-signals are added the CTI processing. The processed signals which become 10 bit digital signals are demodulated to analogue Y/U/V signals by the10 bit D/A converter with 32MHz clock rate (the double of input A/D sampling).

The Y/U/V signals up-converted to 100Hz are eliminated the clock components at external 12MHz LPF, and output from the scan converter circuit after adjusting the gain amplitude for sharpness IC, TDA9178, at the next stage. Also 100Hz H-sync and V-sync signals are supplied to the deflection circuit.

The clock used for system control is line lock clock. The H/V signals which is synchronised with Y/U/V signals are sent to the scan converter for timing control. The PLL/VCO circuits generate a system clock 32MHz by referring to its 15.7kHz H-signal. The PLL, MC74HC4046AF, phase compares the H-signal getting waveform-shaped at TC7S32F and the signal getting divided 32MHz clock by 1024 and controls VCO circuit at the next stage to synchronise the phase. After waveform-shaping at TC7SU04F and TC7SH00F, its clock signal are supplied to each ICs as the 32MHz system clock.

The making of display information with 100Hz scan conversion is performed by the following format.

1) Digital scan

	odd field		even field		odd field		even field		odd field	
Signal	A		B		C		D		E	
100Hz scan field *	o	e	o	e	o	e	o	e	o	e
Display field	A+b	a+B	B+c	b+C	C+d	c+D	D+e	d+E	E+f	e+F

* e = even, o = odd field

The display field picture information on the digital scan is made by analysing the 2 fields previous data stored in the field memory. The digital scan analyses the picture information on the same peripheral area of the pixel between the fields and detects the motion vector, and creates a new field picture information according to its motion.
The small and capital letter show which field data is emphasised when making the field data. The capital letter shows emphasised field data.

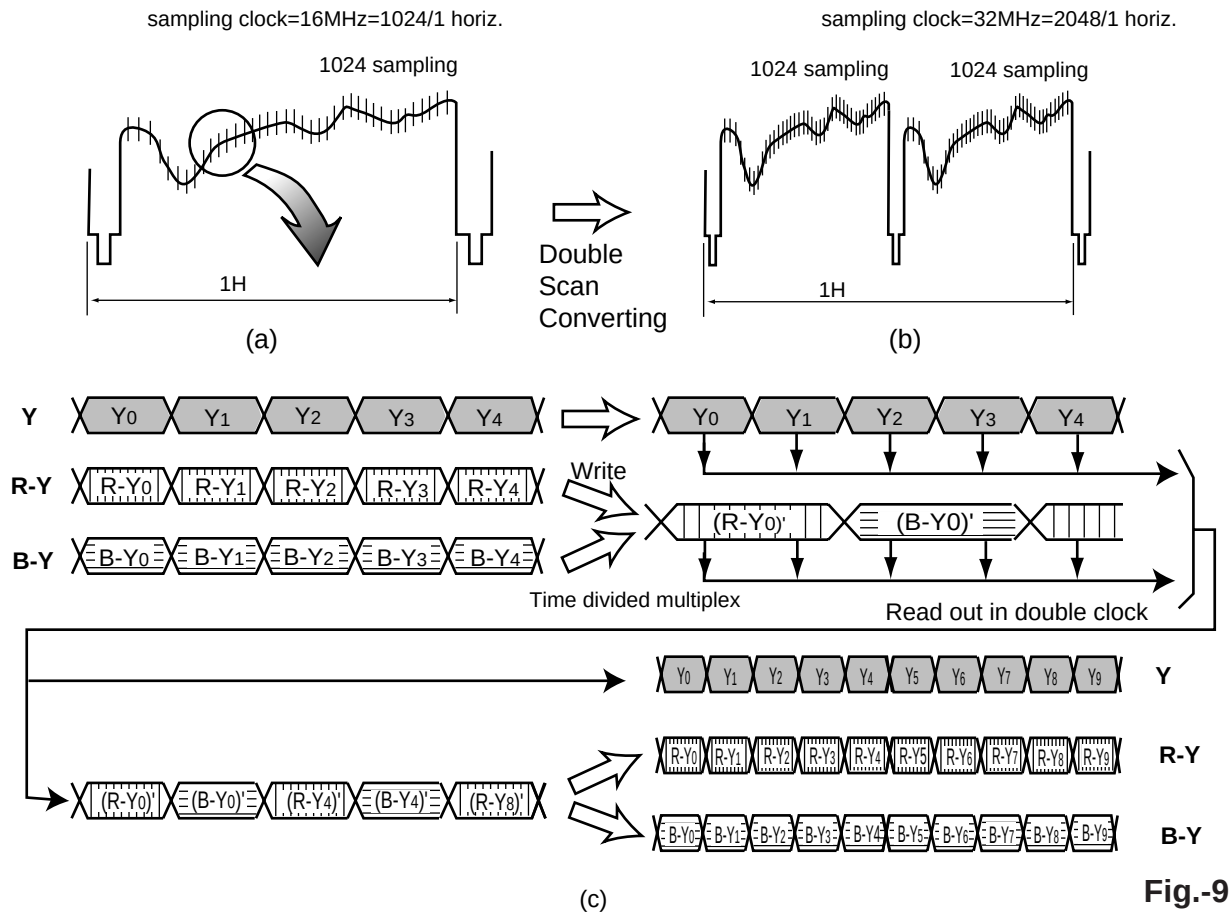


Fig.-9

2) 100Hz Normal scan

	odd field		even field		odd field		even field		odd field	
Signal	A		B		C		D		E	
100Hz scan field	o	e	o	e	o	e	o	e	o	e
Display field	A	A	B	B	C	C	D	D	E	E

* e = even, o = odd field

The display field picture information on the normal scan is made simply by reading out each field data stored in the field memory with double scanning frequency repeatedly.

SAA4977H and SAA4991WP are controlled via IIC bus. The CPU of the TV sends the control data to SAA4977H to control the display mode. The equipped micro-computer in SAA4977H receives external commands via IIC bus and controls SAA4991WP to change the operation through the SNERT-bus.

The system clock is 32MHz, f=fH x 1024 x 2
NTSC : 32.223776MHz
PAL : 32.000000MHz

Power supply & Protection circuit

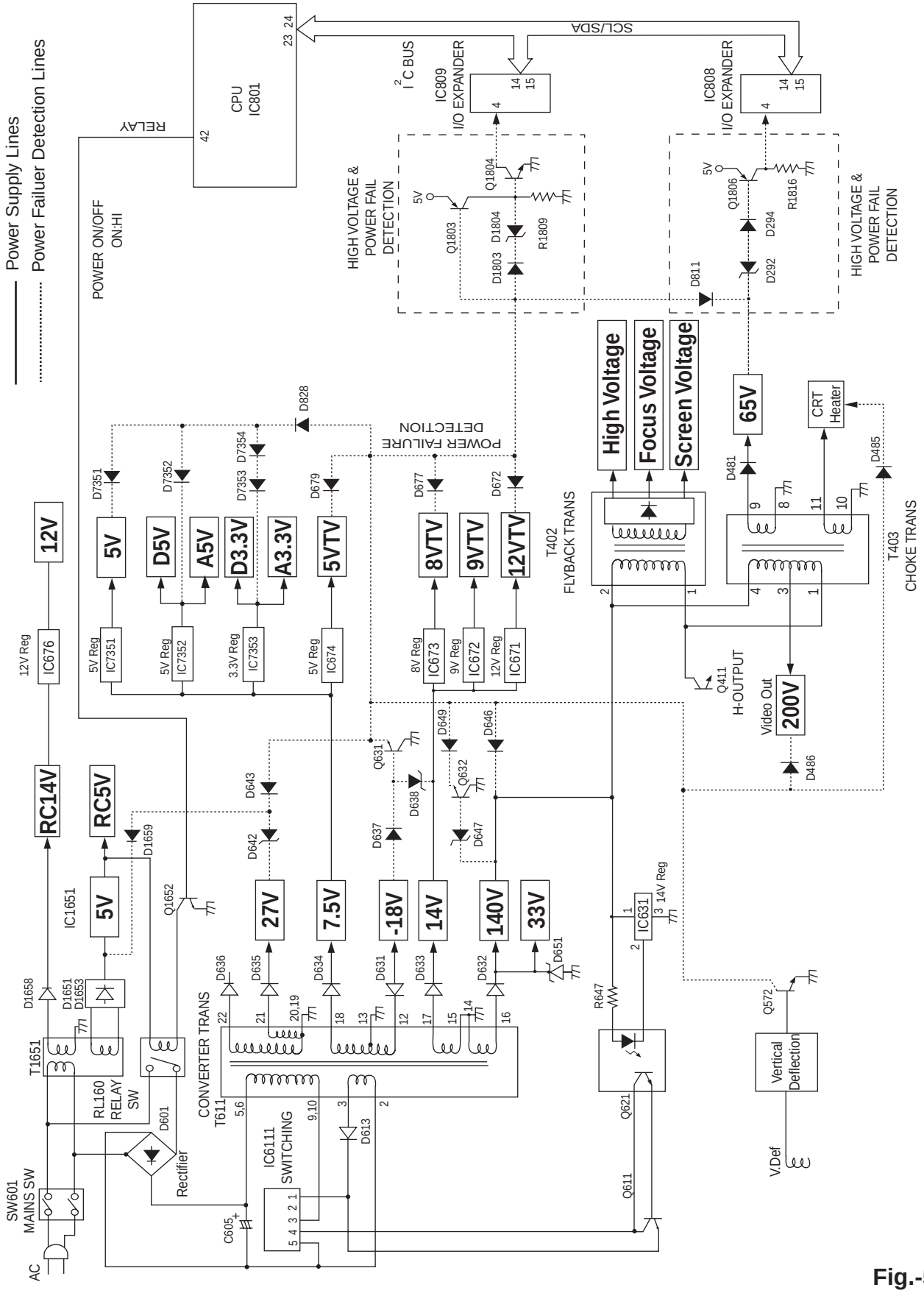
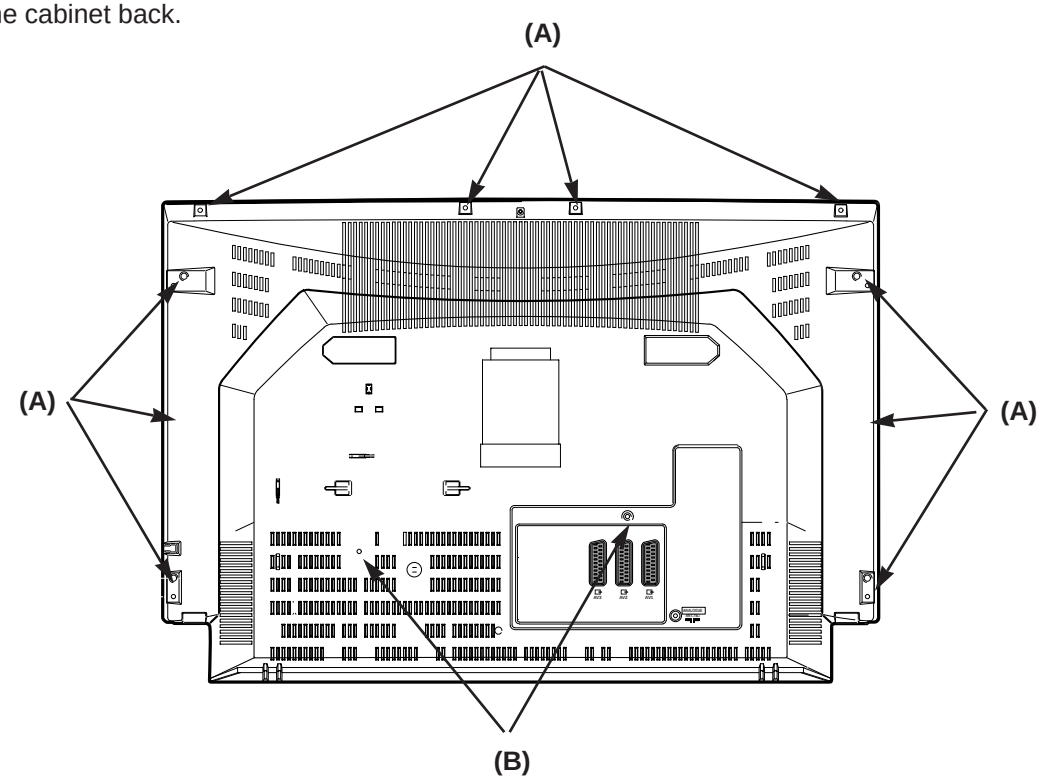


Fig.-5

CABINET BACK DISASSEMBLY

1. Remove 10 screws(A) and 2 screws(B)
2. Pull out the cabinet back.



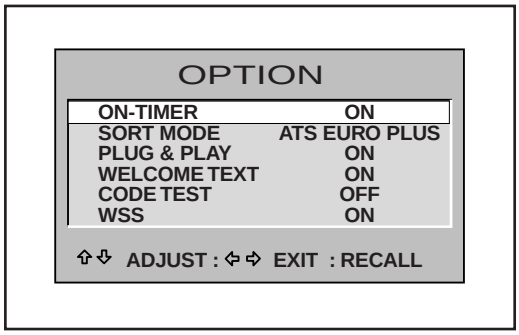
OPTION SETTING

[After replacing the Memory IC (IC803)]

The memory IC, IC803, stores the option data of TV set and service adjustments data for each circuit, therefore, when the memory IC is replaced, it should be programmed with the following setting and “SERVICE ADJUSTMENT” on next page.

To enter to the Option Mode

+ Press and hold the **“RECALL”**button on the remote control and **“PROG.+”** button on the front panel of the TV. The option window will appear on the screen.



To set the option mode

+ Highlight the desired option item by using the **UP** or **DOWN**button .
+ To switch the option mode, use the **Volume - (LEFT)** or **Volume + (RIGHT)** button.
+ The data which is set in the option mode is stored into the memory IC automatically.

Following table shows the available option items and default setting mode.

Option Mode	Mode	Note
ON-TIMER	ON or OFF	Default “ON”
SORT MODE	ATS EURO PLUS	Depends upon destination
	or AUTO TUNE	
	or AUTO TUNE/SORT	
PLUG & PLAY	ON or OFF	Default “ON”
WELCOME TEXT	ON or OFF	Display message when first set up, default “ON”
CODE TEST	OFF or ON	For factory use, default “OFF”
WSS	ON or OFF	Wide Screen Signaling available, default “ON”

Exit from the Service Mode

+ Press the **RECALL** button.

Note: Some items of the service adjustments for this chassis are controlled by the CPU, IC801, and the adjustments are carried out by using the RC handset.

[After replacing the Memory IC (IC803)]

The memory IC, IC803, stores the service adjustments data for each circuit, therefore, when the memory IC is replaced, it should be programmed with “OPTION SETTING” on previous page and the following adjustments, refer to futher adjustment on page 14.

ADJUSTABLE SERVICE ADJUSTMENT

REGULAR

Item No.	OSD	Description
1	VC1	B/G VCO Adjustment
2	VC2	France-L/L’ VCO Adjustment
3	AGC	AGC Adjustment
4	SCR	Screen Adjustment
5	GRY	White Balance Adjustment
6	CUT	Cut-Off Drive Adjustment
7	CTR	Contrast Adjustment
8	OSD	OSD Positioning Adjustment

WIDE

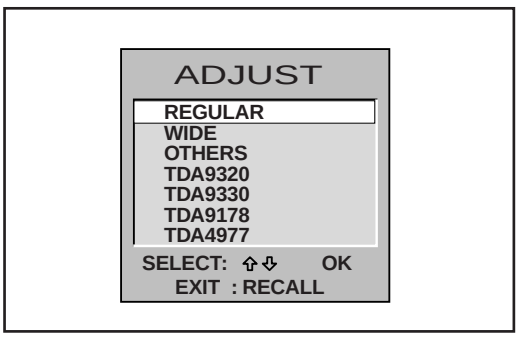
Item No.	OSD	Description
4	P V-WA	Vertical Size Adjustment
6	P V-L	Vertical Centre Adjustment
8	P H-P	Horizontal Centre Adjustment
9	P H-W	Horizontal Size Adjustment
11	P PCC	Pcc Adjustment
16	P TRP	Trapezoid Distortion Adjustment

IMPOTANT NOTICE

Do not attempt to adjust service adjustments not listed on the above otherwise it may cause loss of performance and product safety.

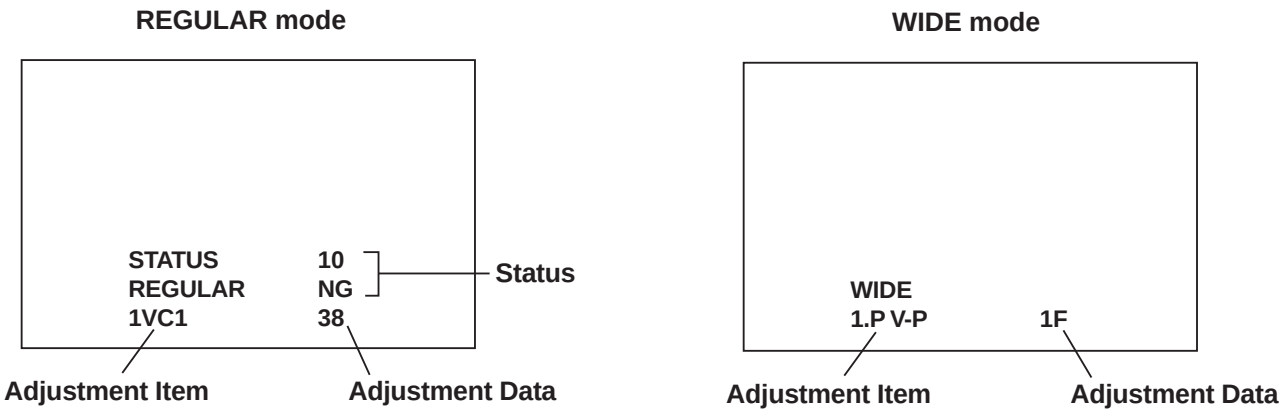
To enter to the Service Mode

+ Press and hold the “**RECALL**” button on the remote control and then press the **“SERVICE switch”**inside of the door. The adjustment window will appear on the screen.



To select the mode and service item and change data value

+ Highlight the desired adjustment mode by using the **UP** or **DOWN** button and then press the **OK** button.
+ To select the adjustment item, use the **UP** or **DOWN** button.
+ To change the service data, use the **Volume -(LEFT)** or **Volume + (RIGHT)** button.
+ The data which is set in the service mode is stored into the memory IC automatically.



Exit from the Service Mode

+ Press the **RECALL** button or turn off the TV set by using the Mains switch.

INITIALIZATION OF MEMORY IC

When the memory IC (IC803) is replaced with a new blank IC the default settings will be automatically down loaded at switch on.
When initialized the memory IC, all of the setting data (option data and service adjustment data) stored in the IC are reset to the default value. So it is necessary to set the option settings and readjust the service adjustments listed on left page.

ADJUSTMENTS

IMPOTANT NOTICE

Do not attempt to adjust the following service adjustments except requiring the readjustments in servicing otherwise it may cause loss of performance and product safety.

POWER SUPPLY CONFIRMATION

1. Receive white raster pattern.
2. Set controls to maximum and set the screen mode to "WIDE".
3. Connect digital voltmeter to D632-C and GND.
4. Confirm that voltage is 140±1Vdc.

IF VCO ADJUSTMENT

PAL BG VCO ADJUSTMENT

1. Apply 38.9MHz signal to IF terminal on the tuner.
2. Set system mode to "S-1".
3. Enter to the service mode and select mode "REGULAR", item "REGULAR 1VC1".
4. Press the volume + or - key to set data value to be "10".

SECAM L/L' VCO ADJUSTMENT

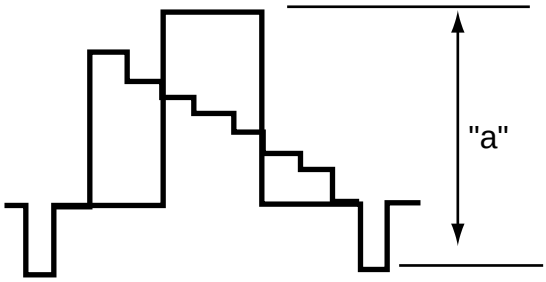
1. Apply 34.3MHz signal to IF terminal on the tuner.
2. Set system mode to "S-4".
3. Enter to the service mode and select mode "REGULAR", item "REGULAR 2VC2".
4. Press the volume + or - key to set data value to be "10".

RF-AGC ADJUSTMENT

1. Receive colour bar pattern with 63dBuV/75Ω terminated signal gain.
2. Connect digital voltmeter to TP-AGC and GND.
3. Set system mode to "S-1".
4. Enter to the service mode and select mode "REGULAR", item "REGULAR 3AGC".
5. Press the volume + or - key to adjust voltage to be 3.2Vdc.

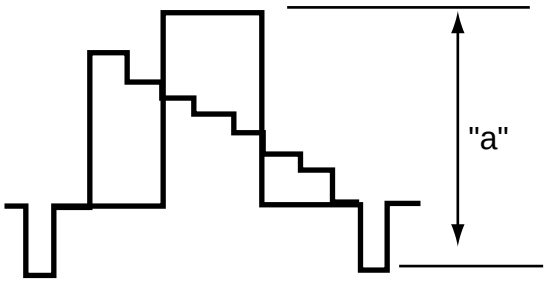
VIDEO LEVEL ADJUSTMENT

1. Receive colour bar pattern.
2. Connect oscilloscope to C155 (R175 side) and GND.
3. Adjust amplitude "a" to be 1.0Vp-p by using VR181.



Y-OUT LEVEL ADJUSTMENT

1. Receive colour bar pattern.
2. Connect oscilloscope to C7064 and GND.
3. Set controls to maximum.
3. Adjust amplitude "a" to be 1.0±0.05Vp-p by using VR7001.



SCAN PLL ADJUSTMENT

1. Receive colour bar pattern and set controls to maximum.
2. Connect oscilloscope to test point "TP-1" on the Scan converter board.
3. Adjust voltage to be 2.7±0.2Vdc by using T7201.

FOCUS ADJUSTMENT

By using FOCUS VR, adjust focus control to obtain sharpest picture.

GREY SCALE ADJUSTMENT

SCREEN ADJUSTMENT

1. Select AV1 mode with no signal input.
2. Enter to the service mode and select mode "REGULAR", item "REGULAR 4SCR".
3. Turn the screen VR to set data value to be "11".

GREY SCALE ADJUSTMENT

1. Receive white raster pattern.
2. Enter to the service mode and select mode "REGULAR", item "REGULAR 5SRY".
3. Select data value by using program up or down key, and press the volume + or - key to obtain the proper white balance.

OSD CENTRING ADJUSTMENT

1. Receive circular pattern and set screen mode to "FULL" with R/C wide button.
2. Enter to the service mode and select mode "REGULAR", item "REGULAR 8OSD". The OSD test bar will appear on the top of screen.
3. Press the volume + or - key to adjust the proper OSD positioning.

VERTICAL ADJUSTMENT

VERTICAL CENTRING ADJUSTMENT

1. Receive circular pattern and set screen mode to "FULL" with R/C wide button.
2. Enter to the service mode and select mode "WIDE", item "WIDE 6.P V-L".
3. Press the volume + or - key to adjust vertical centre.

VERTICAL HEIGHT ADJUSTMENT

1. Receive circular pattern and set screen mode to "FULL" with R/C wide button.
2. Enter to the service mode and select mode "WIDE", item "WIDE 4.P V-WA.
3. Press the volume + or - key to adjust proper vertical height.

HORIZONTAL ADJUSTMENT

HORIZONTAL CENTRING ADJUSTMENT

1. Receive circular pattern and set screen mode to "FULL".
2. Enter to the service mode and select mode "WIDE", item "WIDE 8.P H-P".
3. Press the volume + or - key to adjust horizontal centre.

HORIZONTAL WIDTH ADJUSTMENT

1. Receive circular pattern and set screen mode to "FULL" with R/C wide button.
2. Enter to the service mode and select mode "WIDE", item "WIDE 9.P H-W".
3. Press the volume + or - key to adjust horizontal centre.

PCC ADJUSTMENT

PCC-1 ADJUSTMENT(LINEARITY)

1. Receive cross hatch pattern and set screen mode to "FULL" with R/C wide button.
2. Enter to the service mode and select mode "WIDE", item "WIDE 11.P PCC".
3. Press the volume + or - key to adjust vertical linearity.

PCC-2 ADJUSTMENT(TILT)

1. Receive circular pattern and set screen mode to "FULL" with R/C wide button.
2. Enter to the service mode and select mode "WIDE", item "WIDE 16.P-TRP".
3. Press the volume + or - key to adjust the tilting of vertical lines.

HIGH-VOLTAGE CONFIRMATION

1. Receive circular pattern and set screen mode to "FULL" with R/C wide button.
2. Connect high-voltage meter to the anode of CRT and GND.
3. Confirm that voltage is 30.5±1.0kV for 32" model.

CPU PORT FUNCTIONS

Pin No.	Function Name	Function	IN/OUT
1	MMU0		OUT
2	MMU3		OUT
3	ADDR10	Address bus 10	OUT
4	DSN		
5	ADDR11	Address bus 11	OUT
6	ADDR9	Address bus 9	OUT
7	ADDR8	Address bus 8	OUT
8	RWN		
9	GND		
10	VDD		IN
11	OSC-IN	Clock Input	IN
12	OSC-OUT	Clock Output	OUT
13	ADDR13	Address bus 13	OUT
14	ADDR14	Address bus 14	OUT
15	MMU1		OUT
16	MMU2		OUT
17	MMU4		OUT
18	MMU5		OUT
19	CSO	IIC Switch	OUT
20	ASN	IIC Switch (IIC-3)	OUT
21		IIC Switch (IIC-2)	OUT
22		IIC Switch (IIC-1)	OUT
23	INT1	IIC SDA-1	IN/OUT
24	INT2	IIC SCL-1	OUT
25	INT7	Remote Control Signal Input	IN
26	INT6	Service Switch Input On: L	IN
27	NMI	External Bus Switch Output ACK: L	OUT
28	AIN4	ASPECT S0	OUT
29		ASPECT SI	IN
30		ASPECT CLK	OUT
31	PWM7	Digital Data Input	IN
32	PWN6	Digital Data Clock	OUT
33	PWN5	Digital Data Enable	OUT
34	VDD		IN
35	GND		
36	INT5	Key Input Digital Key	IN
37	INT0	Key Input TV Key	IN
38	INT4	Sensor Input	IN
39	PWM4	Digital Data Output	OUT
40	PWM3	NIM Power On/Off Power on : L	OUT
41	PWM2	DM power On/Off Power on : L	OUT
42	PWM1	AC Relay Switch Relay on : H	OUT
43	PWM0	DM Test/Scan reset	OUT
44	FB	BLK Output for OSD	OUT
45	B	Blue Output for OSD	OUT
46	G	Green Output for OSD	OUT
47	R	Red Output for OSD	OUT
48	V-SYNC	V-Sync Input	IN
49	H-SYNC	H-Sync Input	IN
50	WSCR		

Pin No.	Function Name	Function	IN/OUT
51	WSCF		
52	VDD-A		IN
53	PXFM		
54	RESET	Reset Input	IN
55	MCFM		
56	JTRSTO		
57	TXCF		
58	CVBS0		
59	TEST0		
60	CVBS1		
61	CVBS2		
62	GND-A		
63	DAT3	Data bus 3	IN
64	DAT4	Data bus 4	IN
65	DAT5	Data bus 5	IN
66	DAT6	Data bus 6	IN
67	DAT7	Data bus 7	IN
68	DAT2	Data bus 2	IN
69	DAT1	Data bus 1	IN
70	DAT0	Data bus 0	IN
71	ADDR0	Address bus 0	OUT
72	ADDR1	Address bus 1	OUT
73	ADDR2	Address bus 2	OUT
74	ADDR3	Address bus 3	OUT
75	ADDR4	Address bus 4	OUT
76	ADDR5	Address bus 5	OUT
77	ADDR6	Address bus 6	OUT
78	ADDR7	Address bus 7	OUT
79	ADDR12	Address bus 12	OUT
80	ADDR15	Address bus 15	OUT

I/O Expander 1 (IC809)Pin Function Table (CXA1315)

Pin No.	Function Name	Function	Action	IN/OUT
1	SW1	Power failuer detection Input		IN
2	SW0	Front AV Switch	“H” Front AV “L” AV3	IN
3	DAC4	50/60hz Switch	“H” 50Hz “L” 60Hz	OUT
4	DAC3	CS Switch	“H” Normal/Natural Wide	OUT
5	DAC2	H-Size Control		OUT
6	DAC1	Naormal Switch	“H” Normal	OUT
7	DAC0	Auto-Wide Level		OUT
8	VSS			
9	SW2	VM Switch	“H”: on “L”: off	OUT
10	SW3	--		
11	A0	Chip address		OUT
12	A1	Chip Address		OUT
13	A2	Chip Address		OUT
14	SDA	IIC Bus SDA		IN/OUT
15	SCL	IIC Bus CLK		IN
16	VDD	Power Supply 9V		IN

I/O Expander 2 (IC808) Pin Function Table (PCF8574)

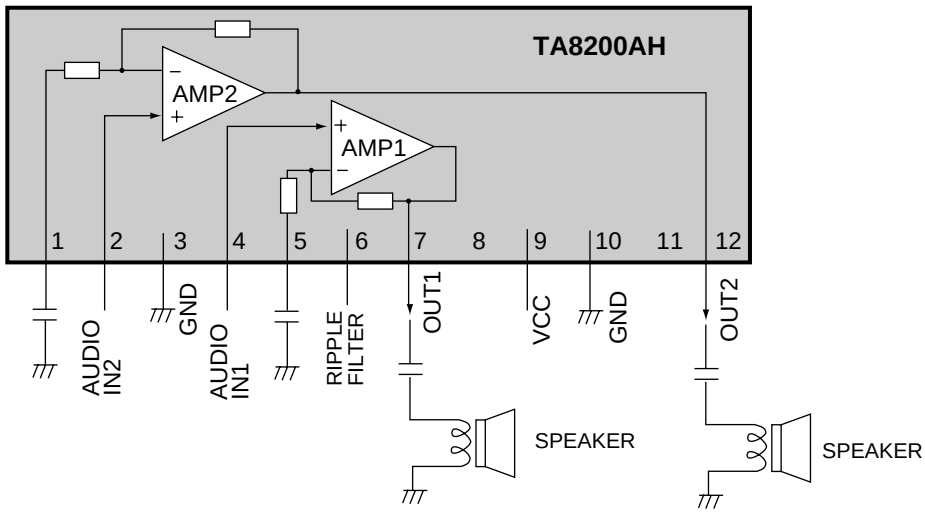
Pin No.	Function Name	Function	Action	IN/OUT
1	A0	Chip Address		IN
2	A1	Chip address		IN
3	A2	Chip Address		IN
4	P0	Sound Mute	“H” Mute on	OUT
5	P1	Scart AV1 Switch	“H” Active	IN
6	P2	Scart AV2 Switch	“H” Active	IN
7	P3	Scart AV3 Switch	“H” Active	IN
8	VSS			
9	P4	On-timer LED Drive	“H” On	OUT
10	P5	PAL/NTSC Switch		OUT
11	P6	3 Line Y/C Switch		OUT
12	P7	Bypass Switch		OUT
13	VDAC	Not used		
14	SCL	IIC Bus SCL		IN
15	SDA	IIC Bus SDA		IN/OUT
16	VDD	Power Supply 5V		IN

I/O Expander 3 (IC807) Pin Function Table (PCF8574)

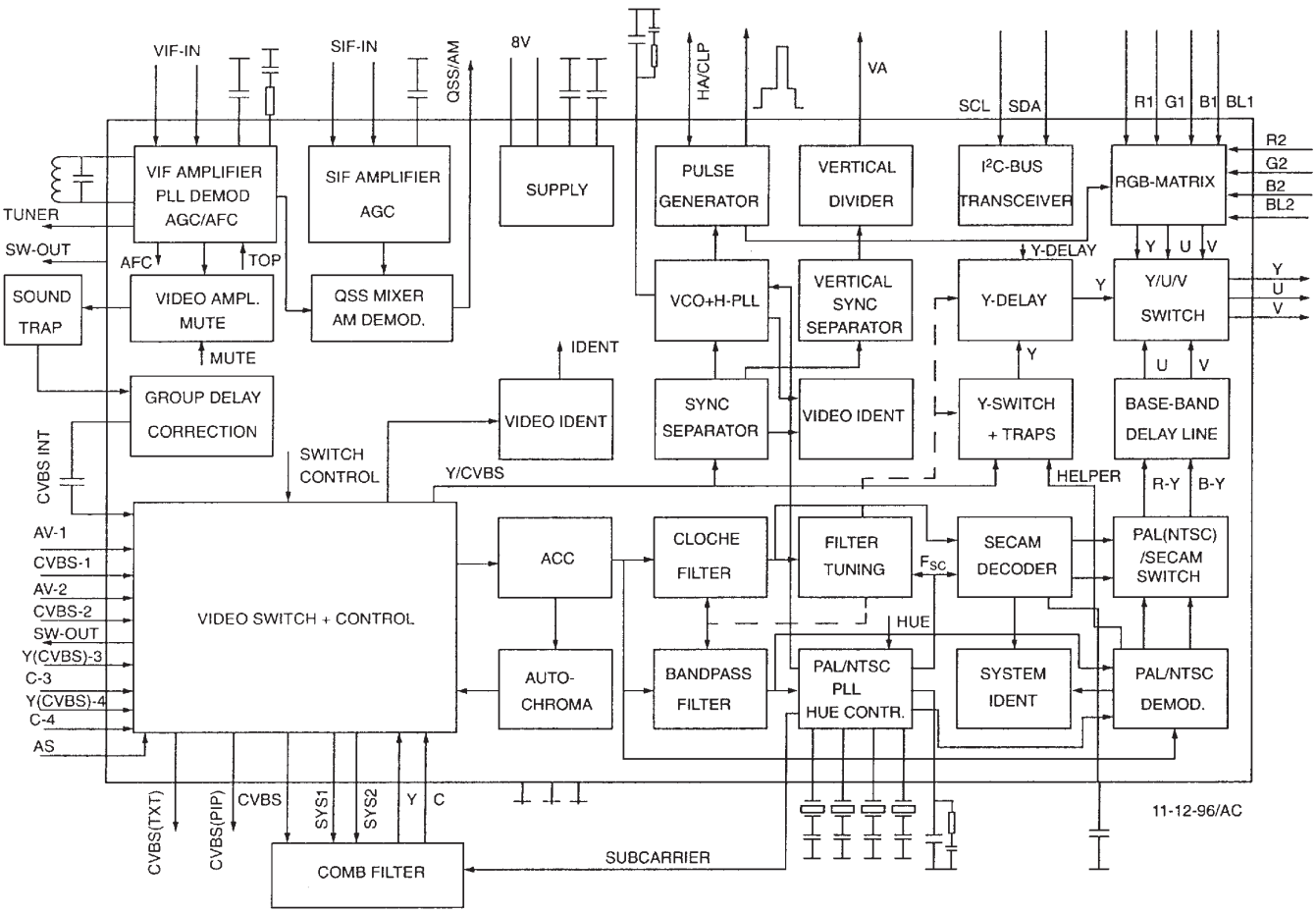
Pin No.	Function Name	Function	Action	IN/OUT
1	A0	Chip Address		IN
2	A1	Chip address		IN
3	A2	Chip Address		IN
4	P0	Digital Power Error		IN
5	P1	DM-NIM power Error		IN
6	P2	Hold Down	“H” on	IN
7	P3	H-Blanking on/off	“H” Blanking on	IN
8	VSS			
9	P4	DSP Reset	“L” Reset	OUT
10	P5	3D Super Switch	“L” Super	OUT
11	P6	Front/Scart3 Switch	“H” Front AV	OUT
12	P7	Power On/Mute Out	“H” Power on	OUT
13	VDAC	Not used		
14	SCL	IIC Bus SCL		IN
15	SDA	IIC Bus SDA		IN/OUT
16	VDD	Power Supply 5V		IN

IC BLOCK DIAGRAMS

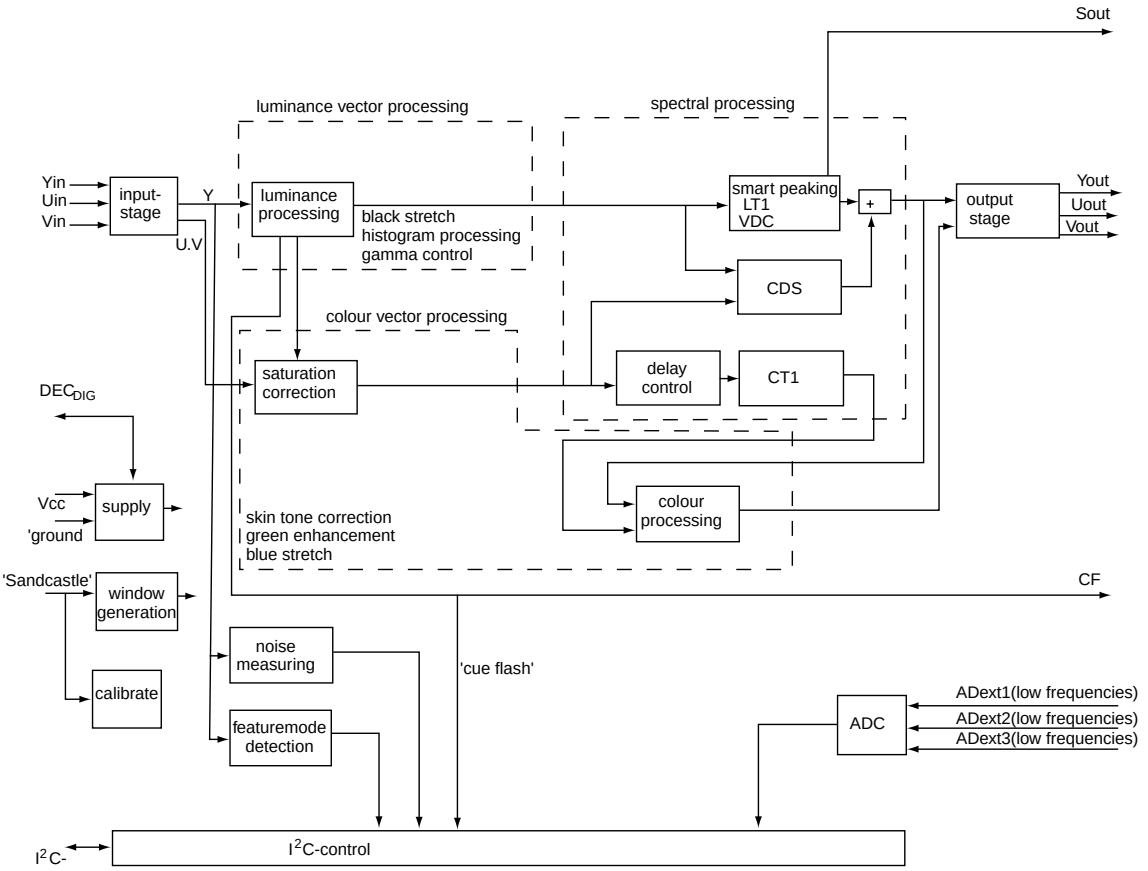
IC001 TA8200 <Audio Output>



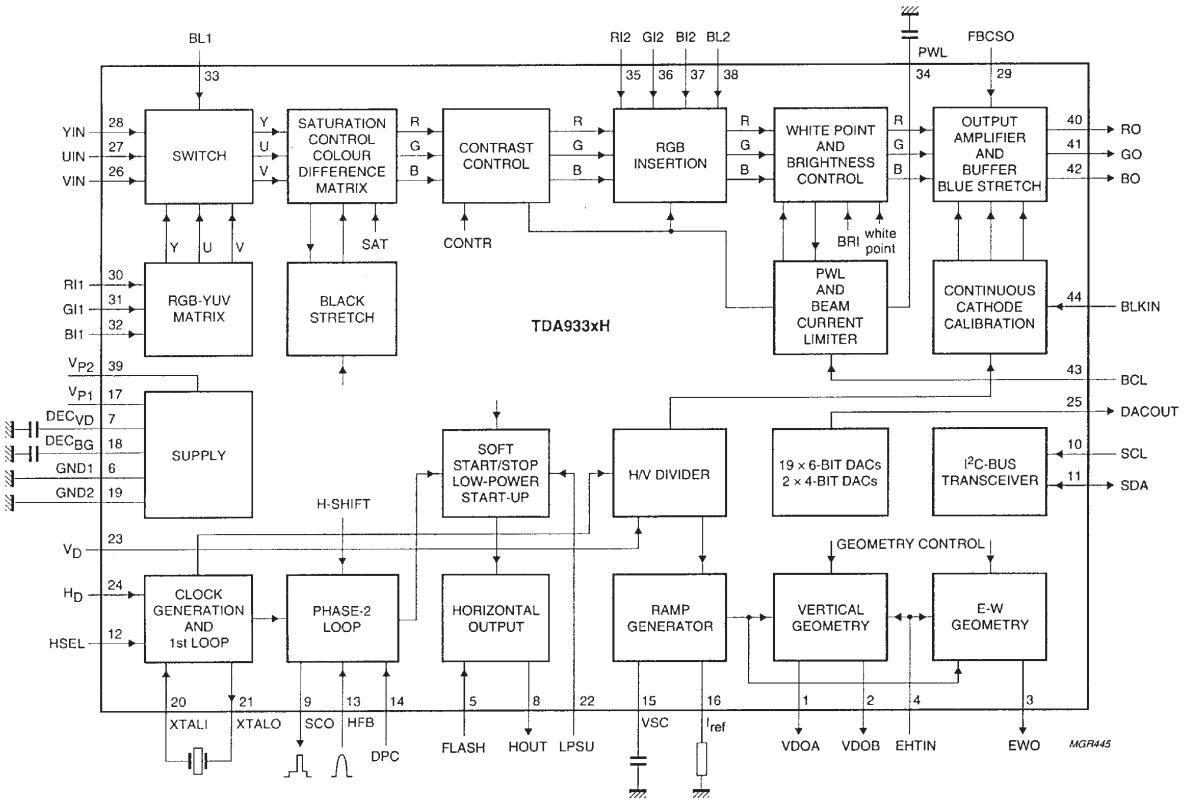
IC101 TDA9321H <IIC bus controlled TV input processor>



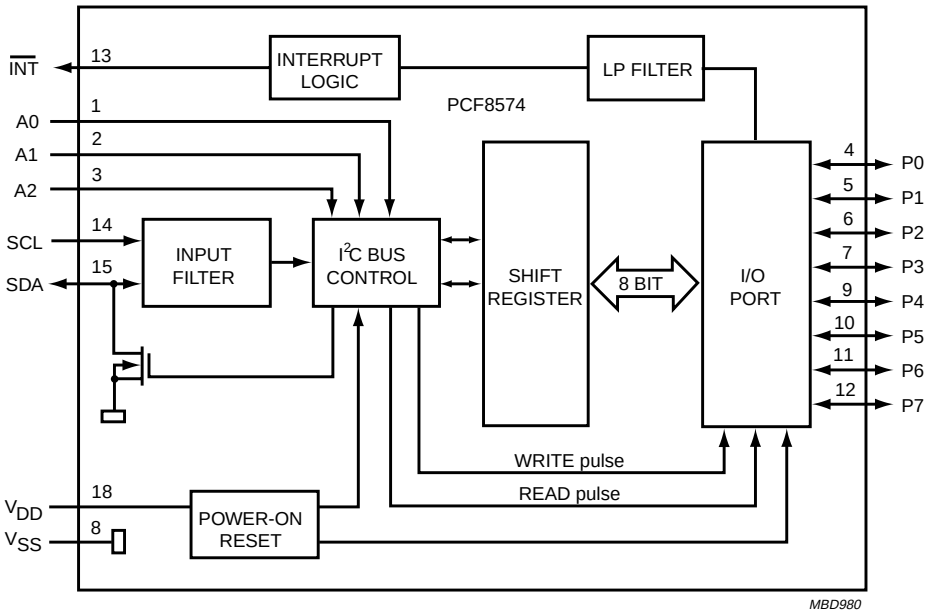
IC201 TDA9178T <YUV Picture Improvement>



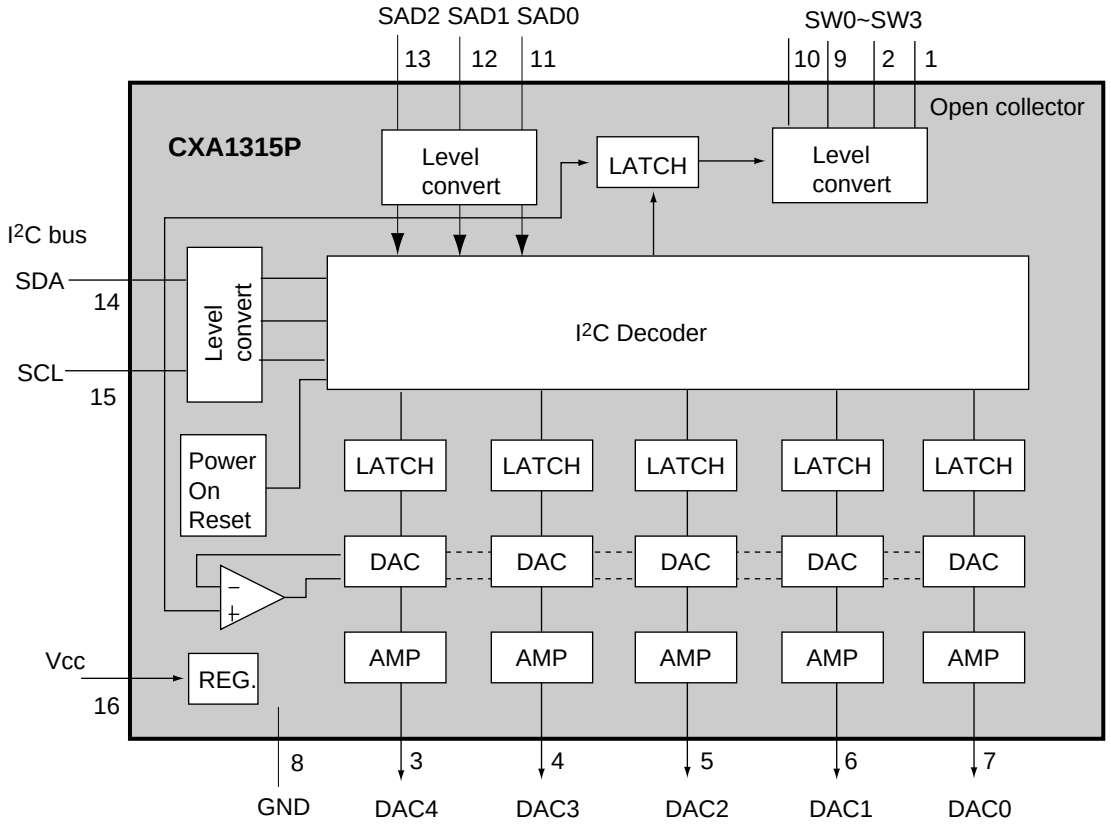
IC202 TDA9330H <IIC bus controlled TV display processor>



IC807 PCF8574AT <I/O Expander>

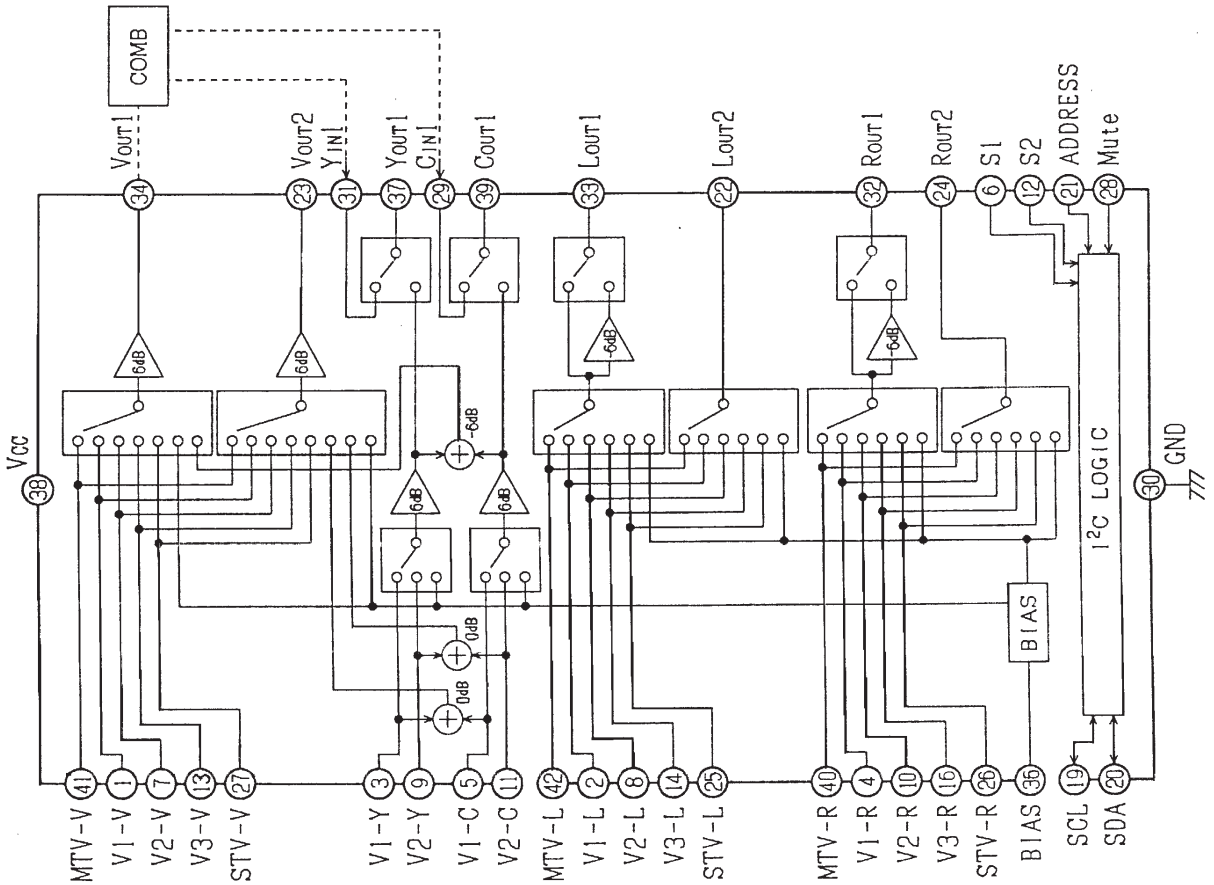


IC809 CXA1315 <I/O Expander>

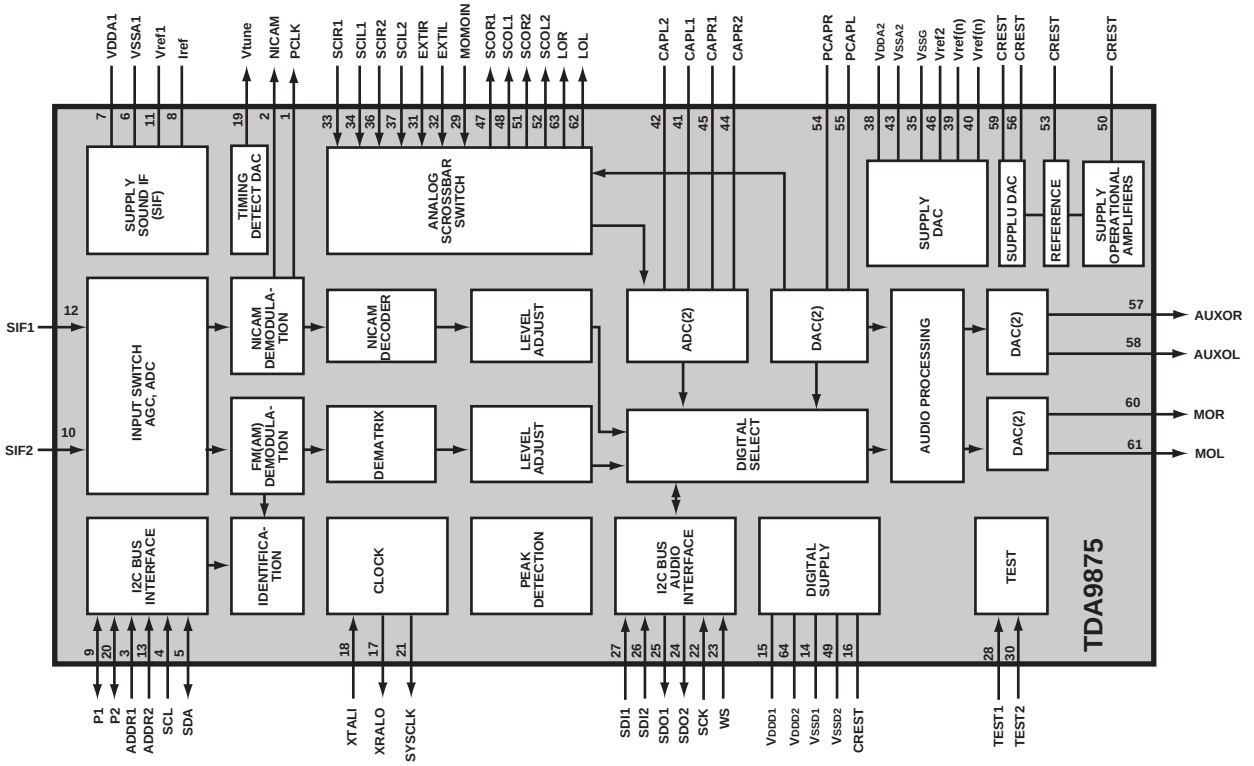


F7YLV

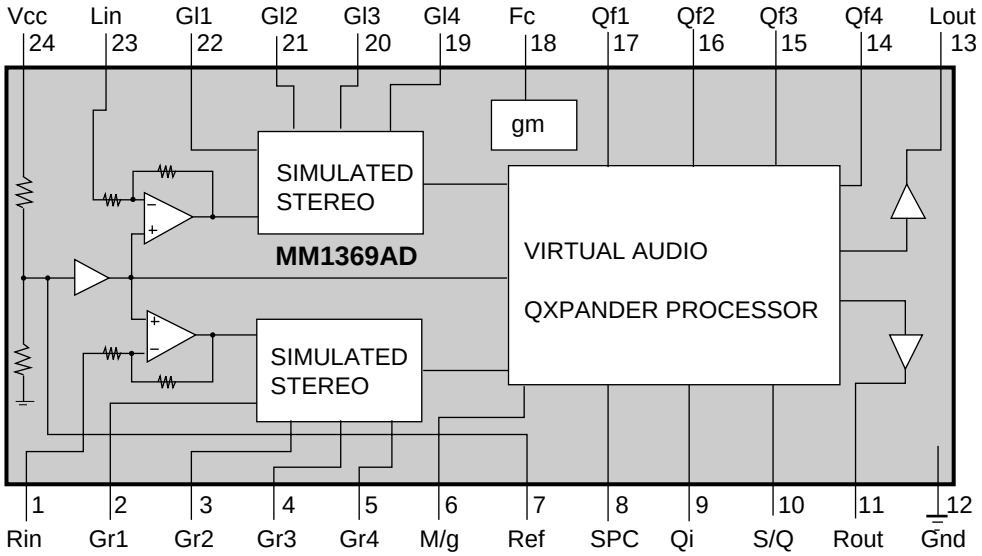
IC1201 MM1313BD <AV Selector>



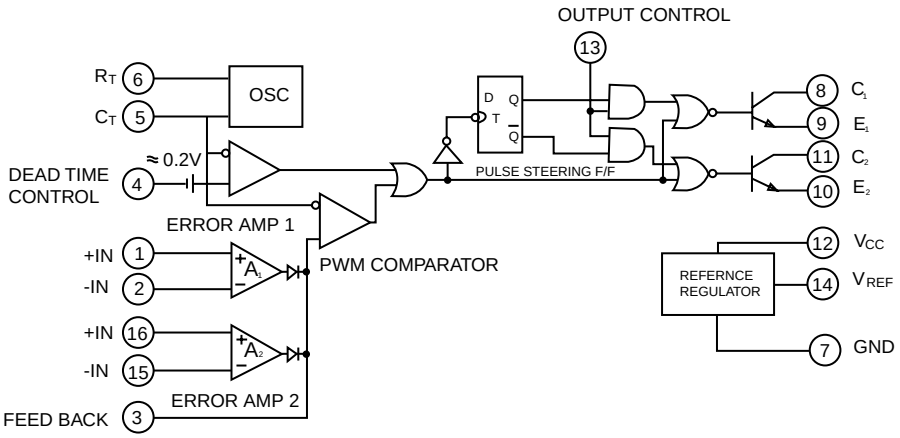
IC3451 TDA9875A <NICAM & Stereo Decoder>



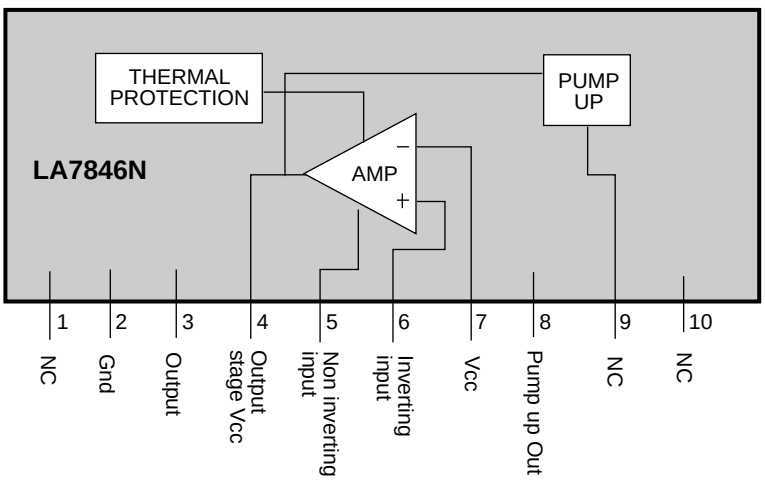
IC3501 MM1369AD <3D Surround Decoder>



IC471 MB3759 <Switching Control>

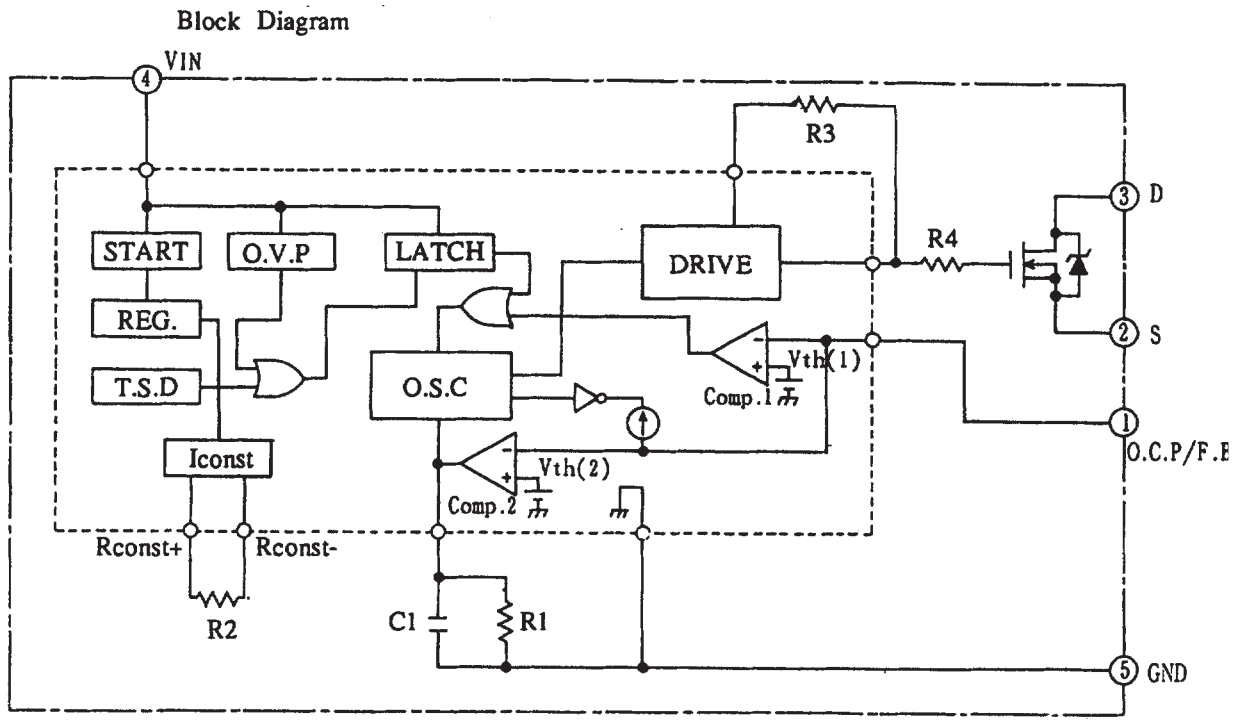


IC501 LA7846 <Vertical Outputr>

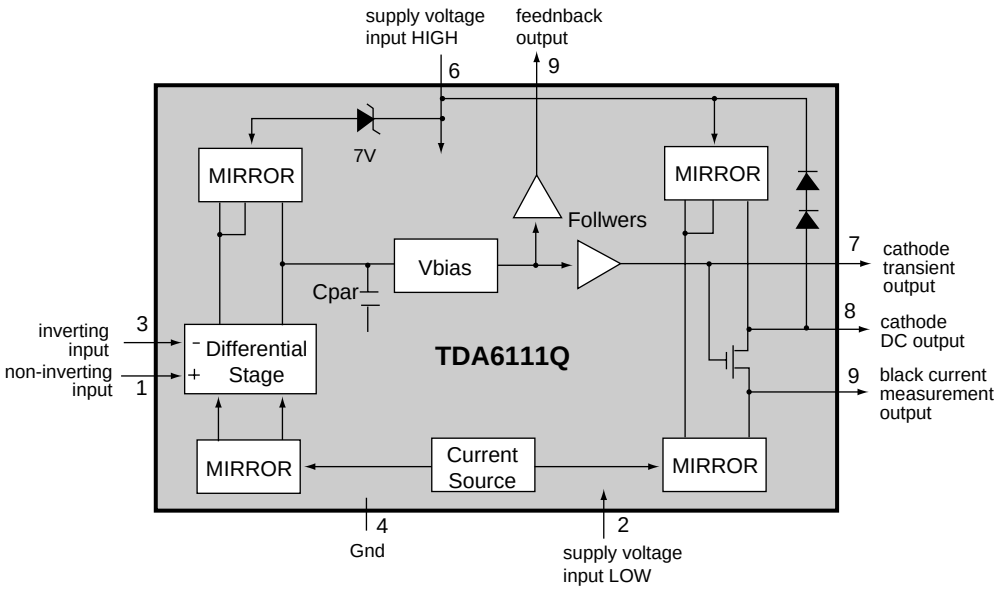


F7YLV

IC611 STR-F6656 <Power Switching Controller>

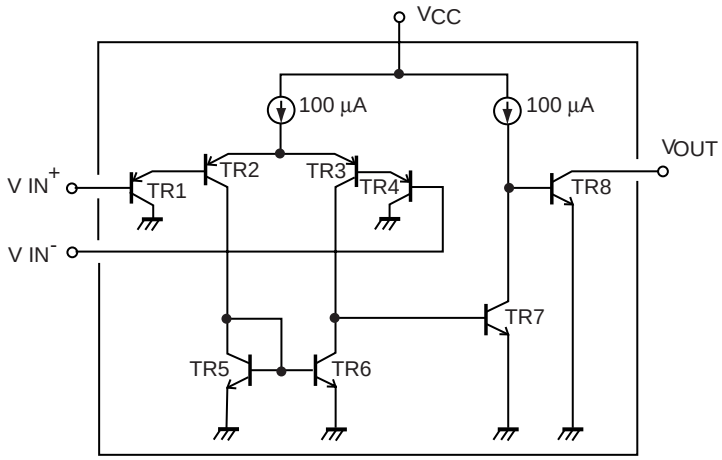


IC711, IC721, IC731 TDA6111Q <Video Output>

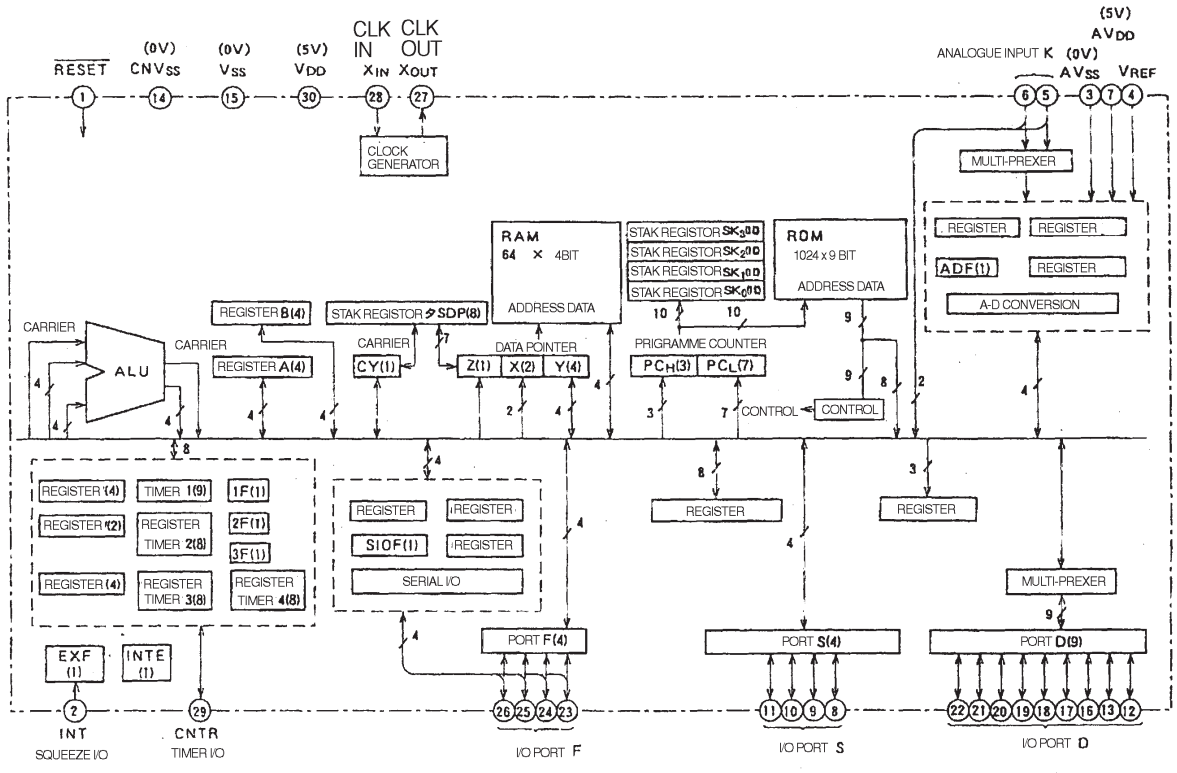


F7YLV

IC1301 LA6393D <Comparator>

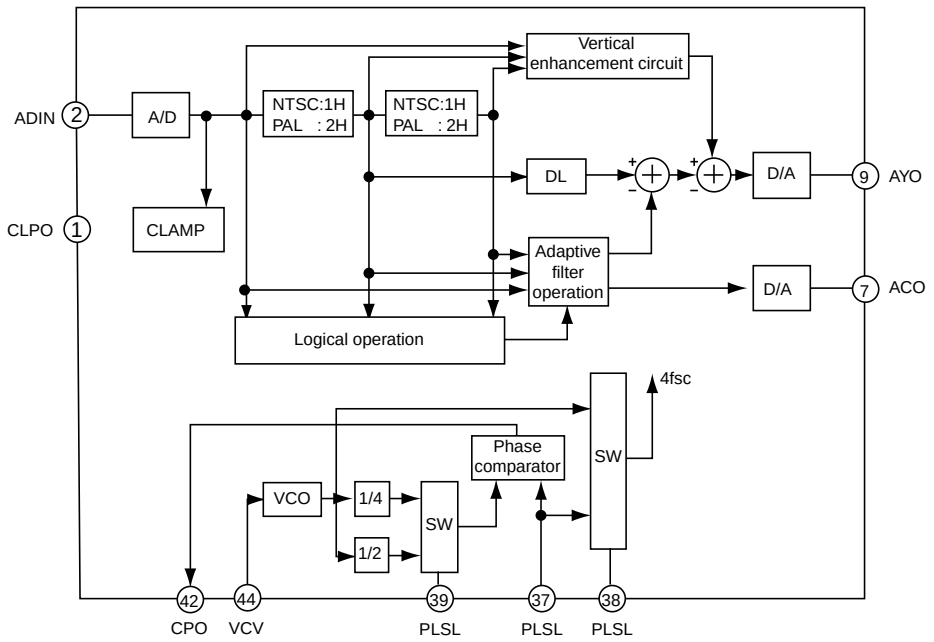


IC1303 M34225M1 <Single Chip Micro-computer>

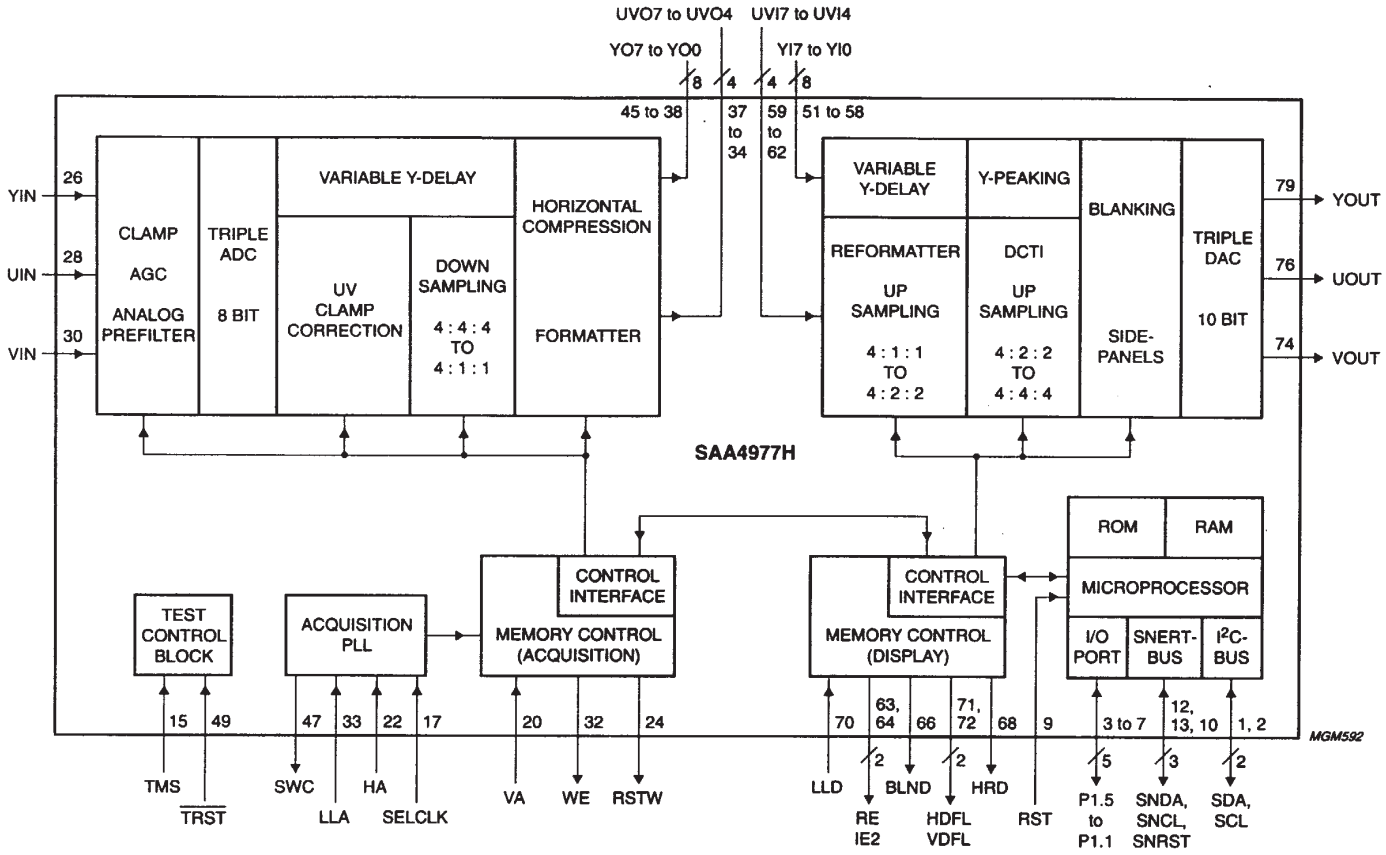


F7YLV

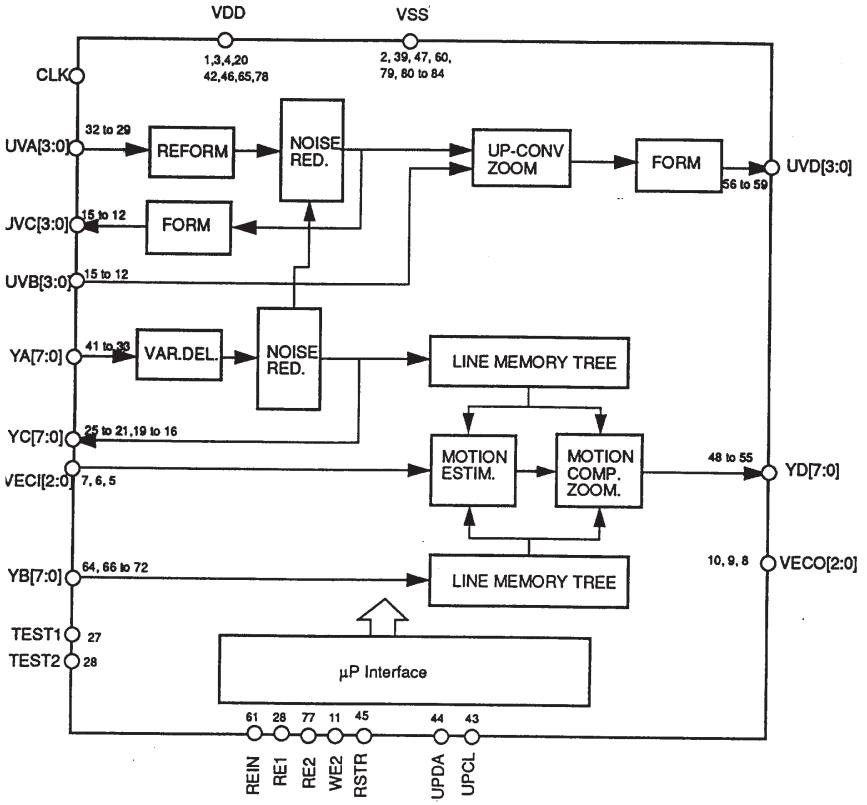
IC7101 CXD2064Q <Digital Comb Filter>



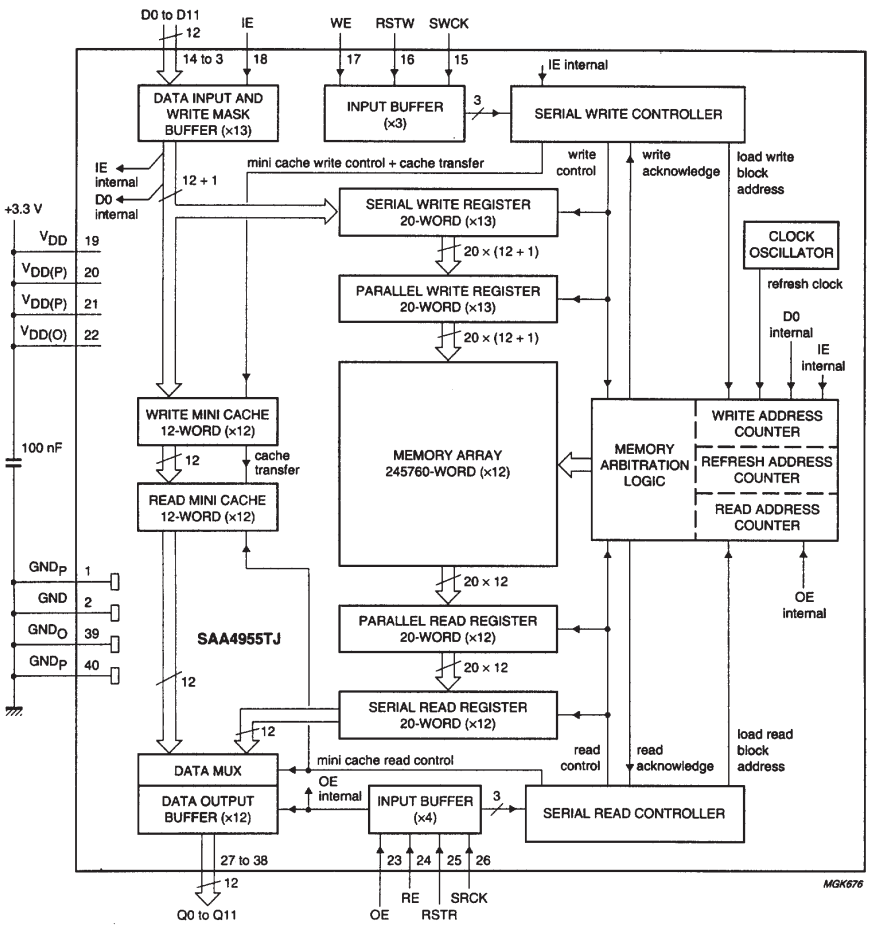
IC7201 SAA4977H <BESIC A/D, D/A & Controller>



IC7205 SAA4991WP <MELZONIC Digital Scan Conversion>

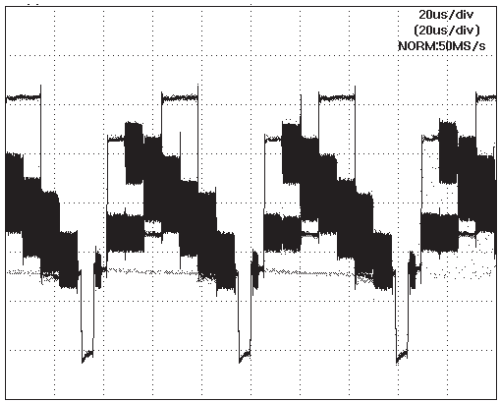
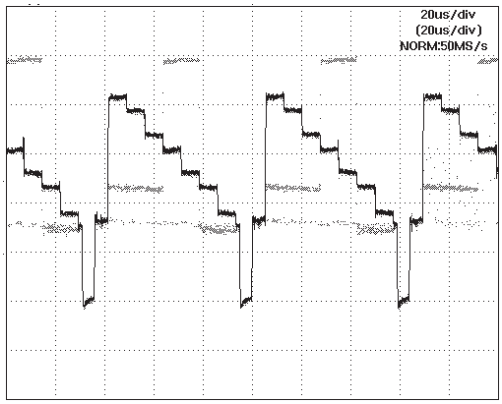
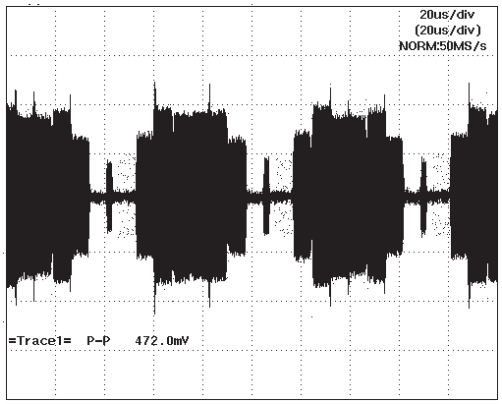
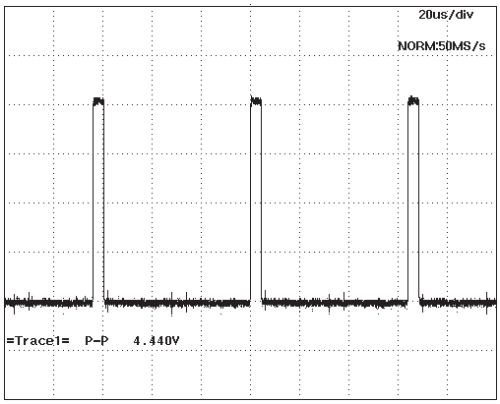
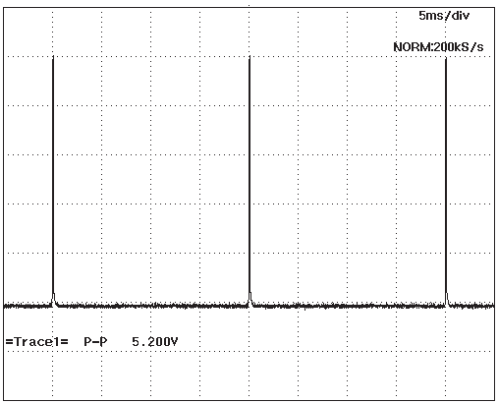
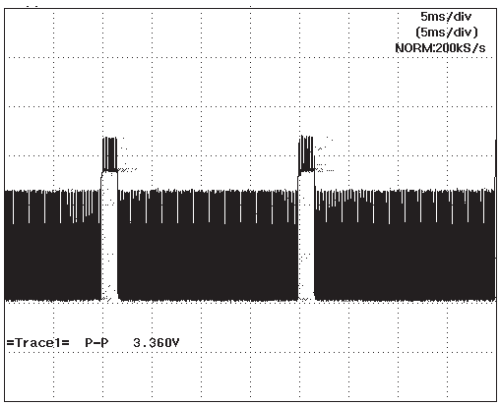
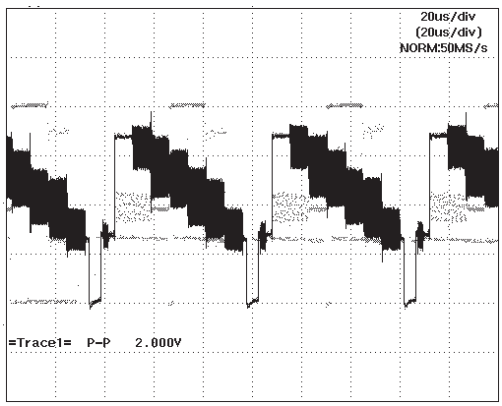
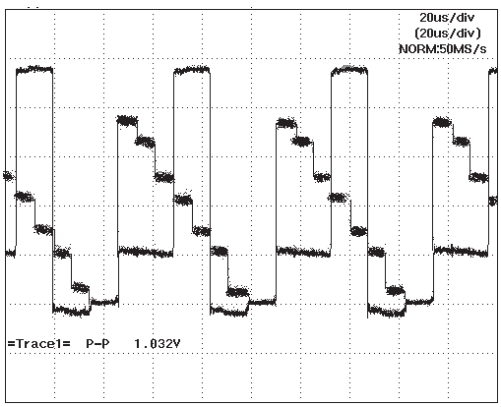


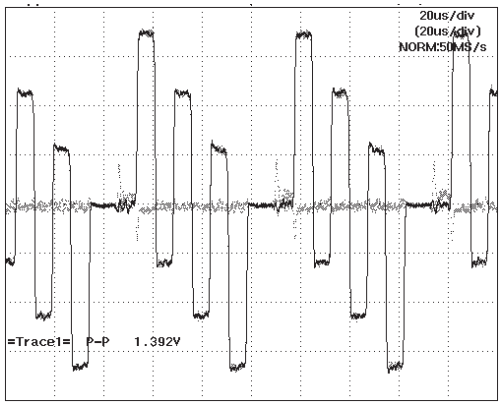
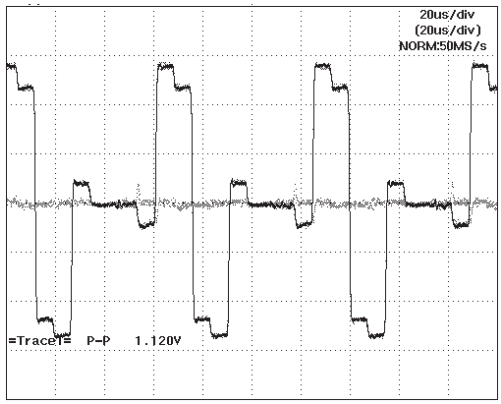
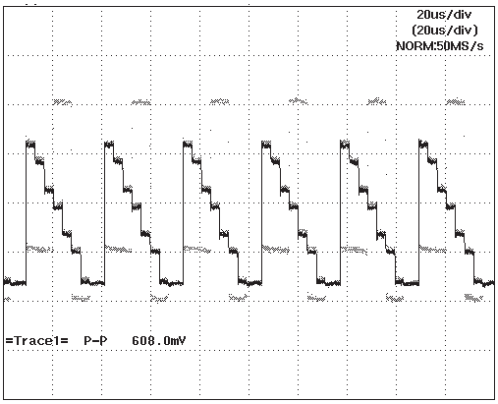
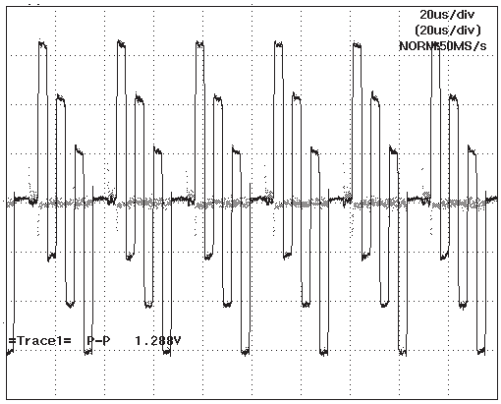
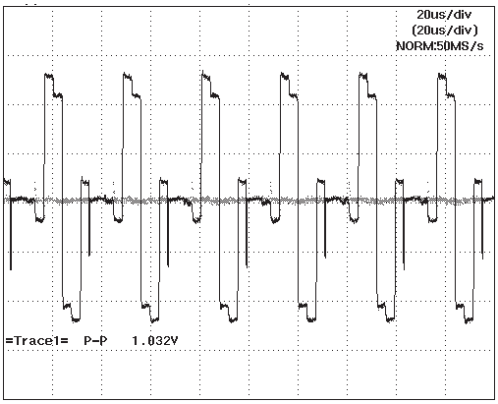
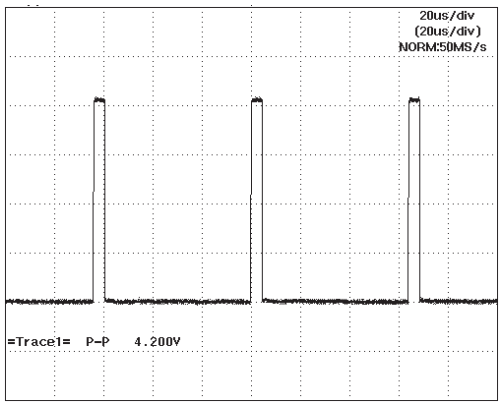
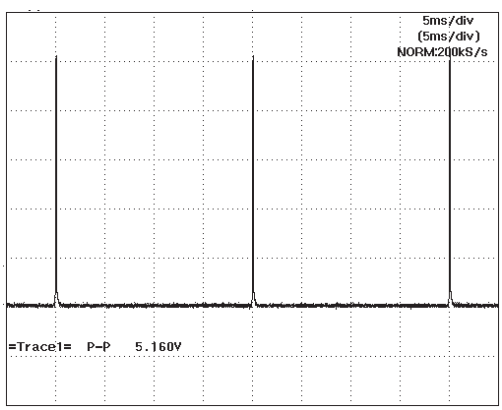
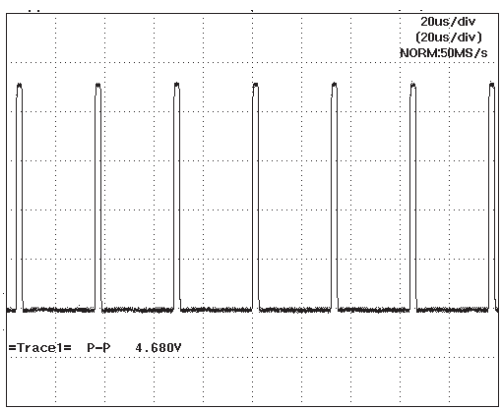
IC7206, IC7207 SAA4955TJ <Field Memory>

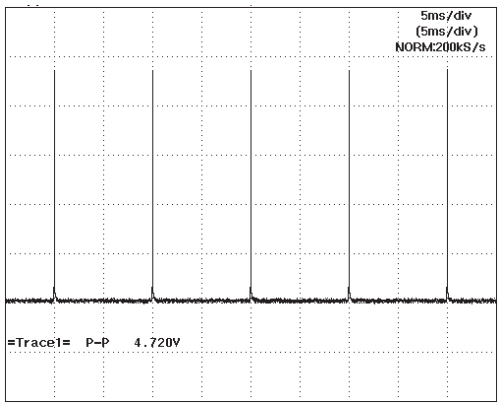
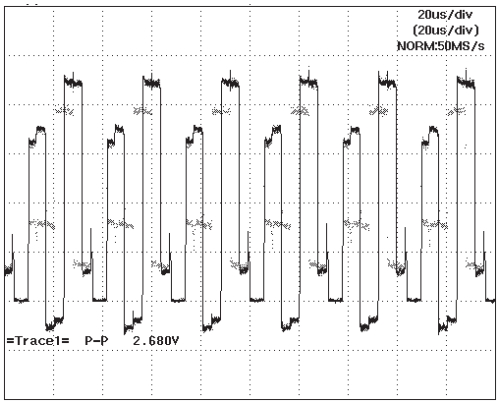
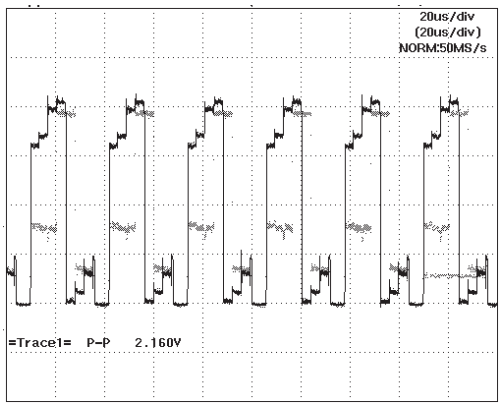
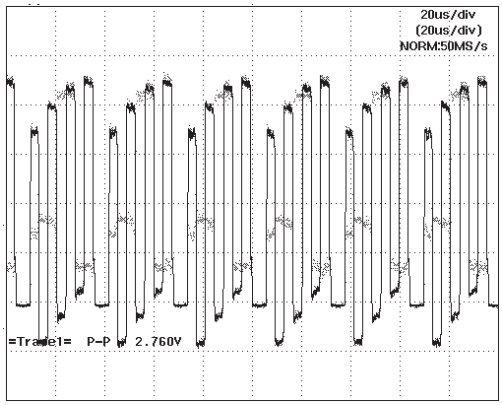
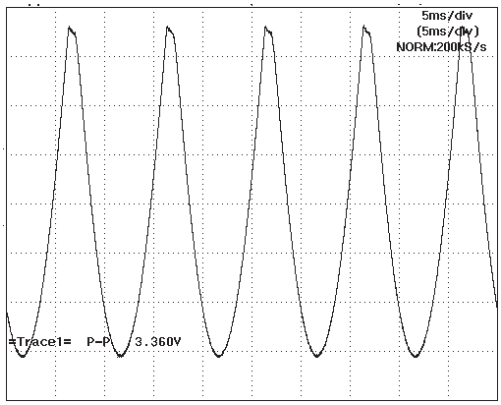
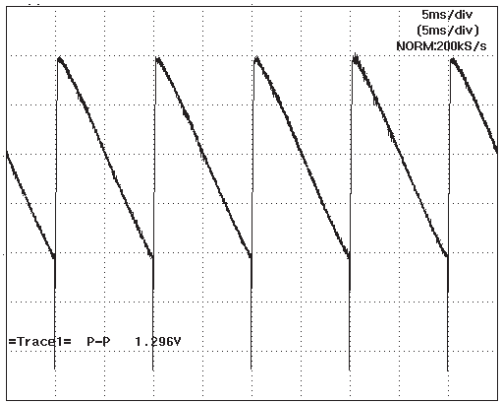
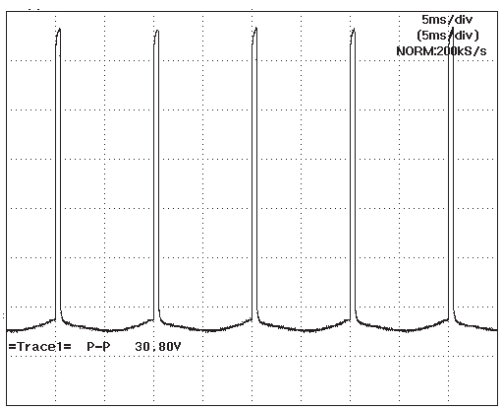
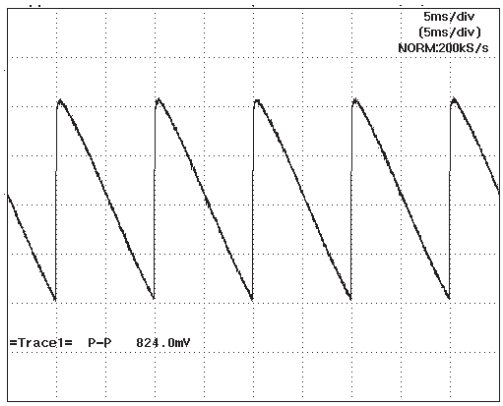


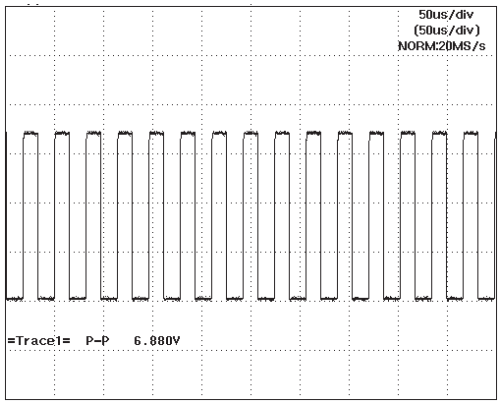
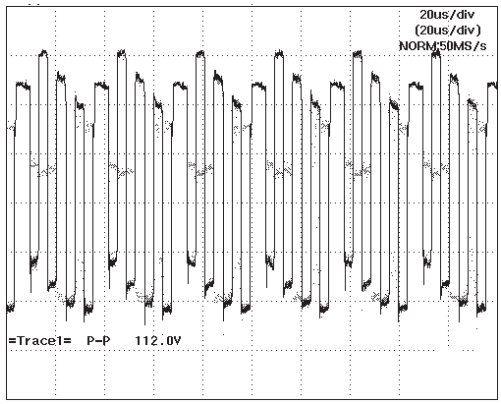
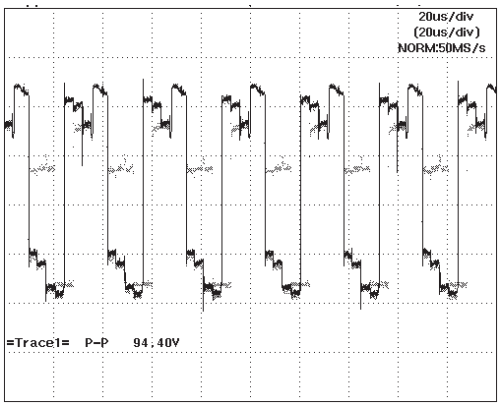
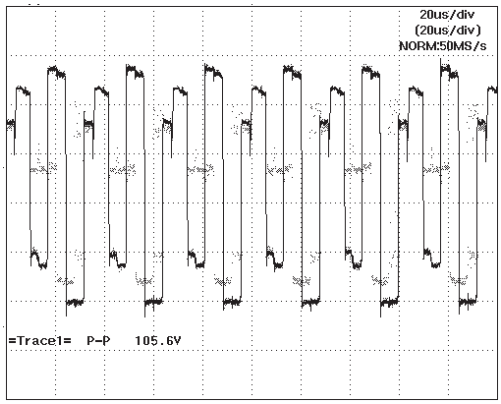
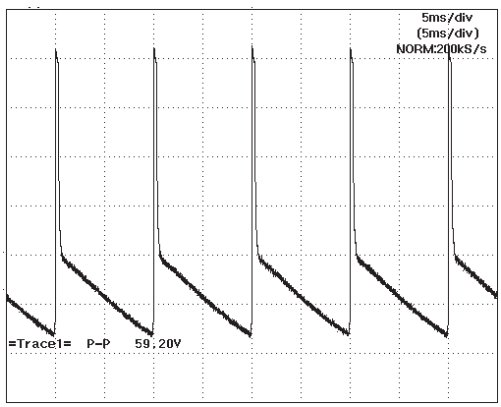
F7YLV

WAVEFORMS

(1) **TPVIDEO,** **K8M-12** **Composite** **Video**		**(2)** **K8M-10** **Y-input**	
(3) **K8M-8** **Chroma-** **input**		**(4)** **K8P-12** **H-sync**	
(5) **K8P-9** **V-sync**		**(6)** **K8P-5** **S.C.-pulse**	
(7) **K8A-12** **Video-** **input**		**(8)** **K8Q--7** **Y-output**	

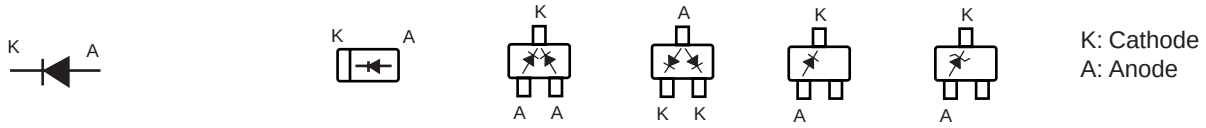
(9) K8Q-9 U(B-Y)-output		**(10) K8Q-11 V(R-Y)-output**	
(11) K8R-12 2Y-input		**(12) K8R-10 2U(B-Y)-input**	
(13) K8R-8 2V(R-Y)-input		**(14) K8R-6 H-Sync output**	
(15) K8R-5 V-Sync output		**(16) K8R-3 2HD-input**	

(17) **K8R-2** **2VD-input**		**(18)** **K3D-2** **R-output**	
(19) **K3D-3** **G-output**		**(20)** **K3D-4** **B-output**	
(21) **K2E-4** **Pcc-** **output**		**(22)** **K2E-6** **Vert-drive** **(-)**	
(23) **K2E-7** **Vert-** **Blanking** **output**		**(24)** **K2E-8** **Vert-drive** **(-)**	

(25) K2D-3 H-drive output		**(26) IC711-8 Blue-output**	
(27) IC721-8 Green-output		**(28) IC731-8 Red-output**	
(29) IC501-3 Vert.-output		**(30) Q402-C Horiz. Drive**	

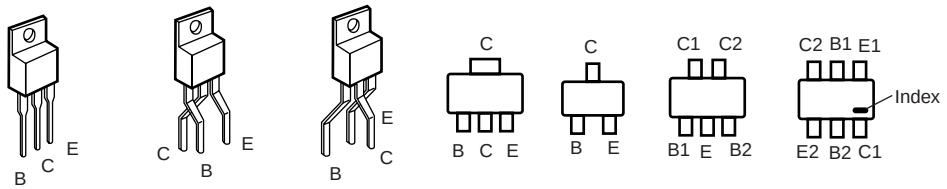
PIN DESCRIPTION OF SEMICONDUCTORS

● Diode



K: Cathode
A: Anode

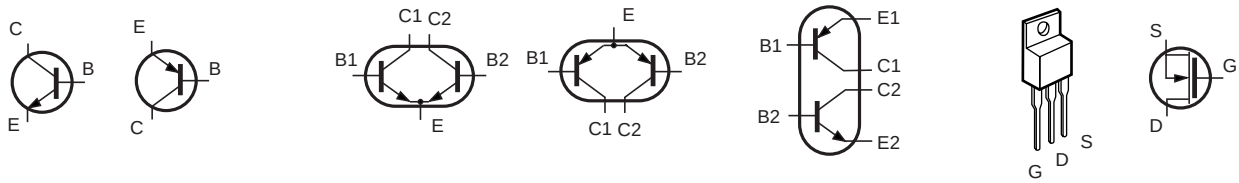
● Transistor/FET



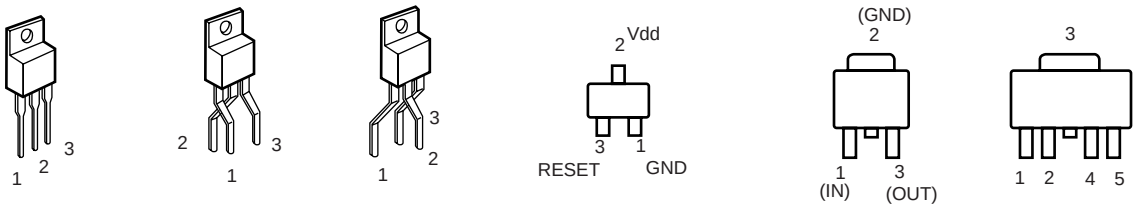
C: Collector
B: Base
E: Emitter

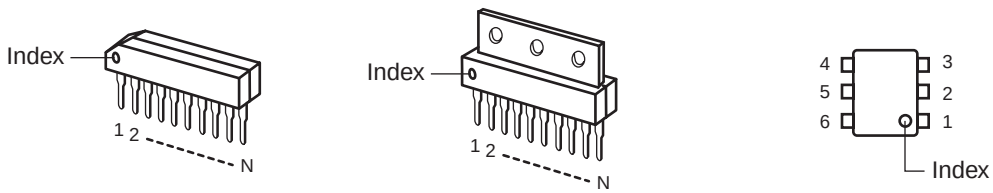
D: Drain
G: Gate
S: Source

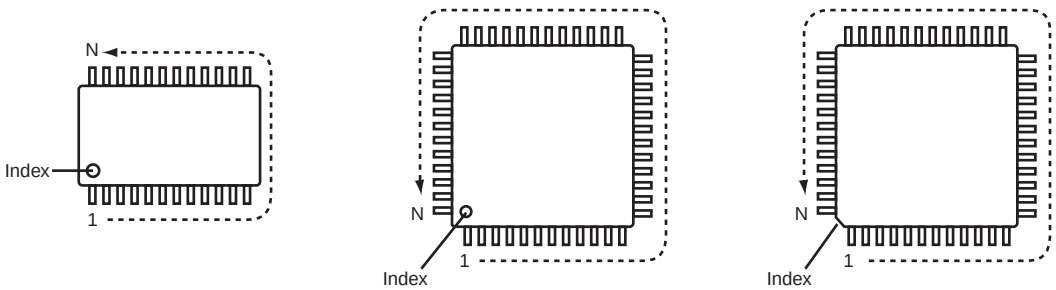
FET

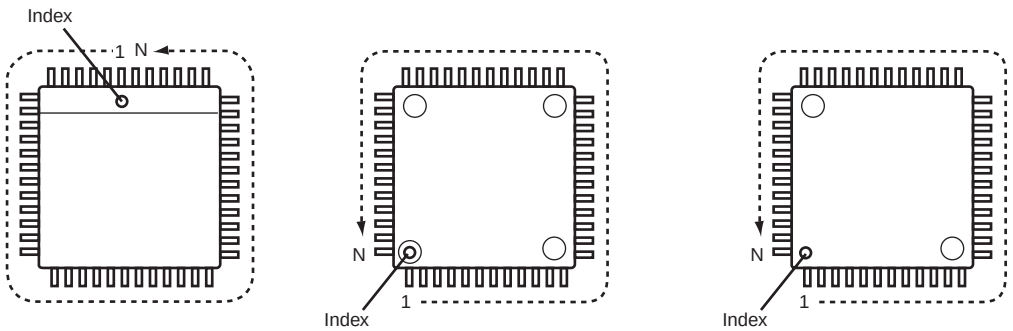


● IC





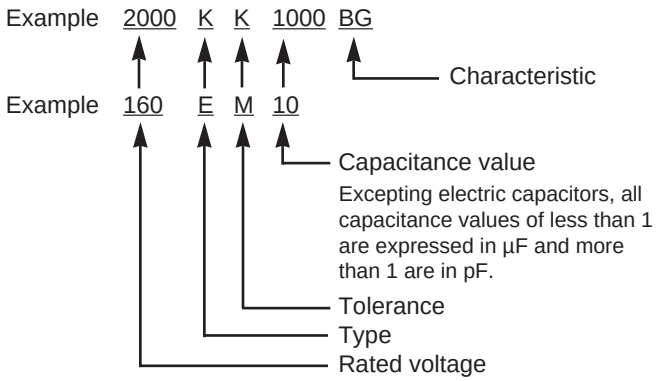




PARTS DESCRIPTION AND READING IN SCHEMATIC DIAGRAM

1. The parts specification of resistors, capacitors and coils are expressed in designated code. Please check the parts description by the following code table.
2. Some of transistors and diodes are indicated in mark for the substitution of parts name. Please check the parts name by the following code table.
3. Voltages and waveforms were taken with a video colour bar signal(1Vp-p at 75 ohms terminated) and controls to normal.
4. Voltages were taken with a high-impedance digital voltmetre.

Capacitor Reading


Example 2000 K K 1000 BG
Characteristic
Example 160 E M 10
Capacitance value
Excepting electric capacitors, all capacitance values of less than 1 are expressed in µF and more than 1 are in pF.
Tolerance
Type
Rated voltage

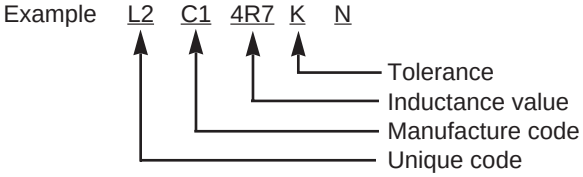
● Material table

Mark	Material
E	Electrolytic
P	Electrolytic (non-Polarised)
C	Ceramic (temperature compensation)
K	Ceramic
F	Polyester
N	Polypropylene
M	Metalised polypropylene
H	Metalised polypromylar
B	Ceramic (semiconductor)
G	Metalised polyestel
Y	Composite film
S	Styrol
T	Tantalum oxide solid electrolytic
U	Organic semiconductive electrolyte
D	Electric double layer electrolytic

● Tolerance table

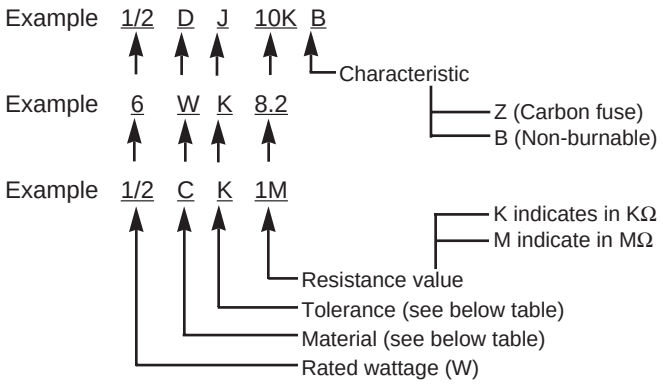
Mark	Tolerance	
A	not specified	
B	±0.1	
C	±0.25	
D	±0.5	
F	±1	
G	±2	
E	±2.5	
H	±3	
J	±5	
K	± 0	
M	±20	
N	±30	
P	+100	-0
Q	+30	-10
T	+50	-10
U	+75	-10
V	+20	-10
W	+100	-10
X	+40	-20
Y	+150	-10
Z	+80	-20

Coil Reading



.....Mark	Tolerance (nH)	Mark
Tolerance (%)		
C ±0.25	G	±2
D ±0.5	J	±5

Resistor Reading



Note: Resistor which is indicated with resistance value only are 1/6W carbon resistor. Resistor which is indicated with material, tolerance and value are 1/4W rated wattage.

● Material table

Mark	Material
D	Carbon
N	Metal film
S	Oxide metal film
C	Solid
G	Metal glaze
W	Wire wounding or cement
H	Ceramic
F	Fusible

● Tolerance table

Mark	Tolerance
A	±0.05
B	±0.1
C	±0.25
D	±0.5
F	±1
G	±2
J	±5
K	±10
M	±20
P	+5 -15
Z	used in 0 ohm

Diode/Transistor Type Reading

● Diode

Mark	Type number
--	1S1555,1S2473,1S2076,1SS133,DS442,1SS176
K	1S1555,1S2473,1S2076,DS442
L	1S1555,1S2076A,1S2471
M	1SS133,1SS176,GMA01
N	1S1555,1S2473,1S2076,1SS133,DS442,1SS176,1N4148
P	1S1555,1S2076A,1S2471,1N4148
R	1S1555,1S2076,1S2473,DS442,1N4148
AA	1S1555,1S2076,1S2473,1SS133,DS442,1SS176,1N4148,GMA01

● Transistor (NPN type)

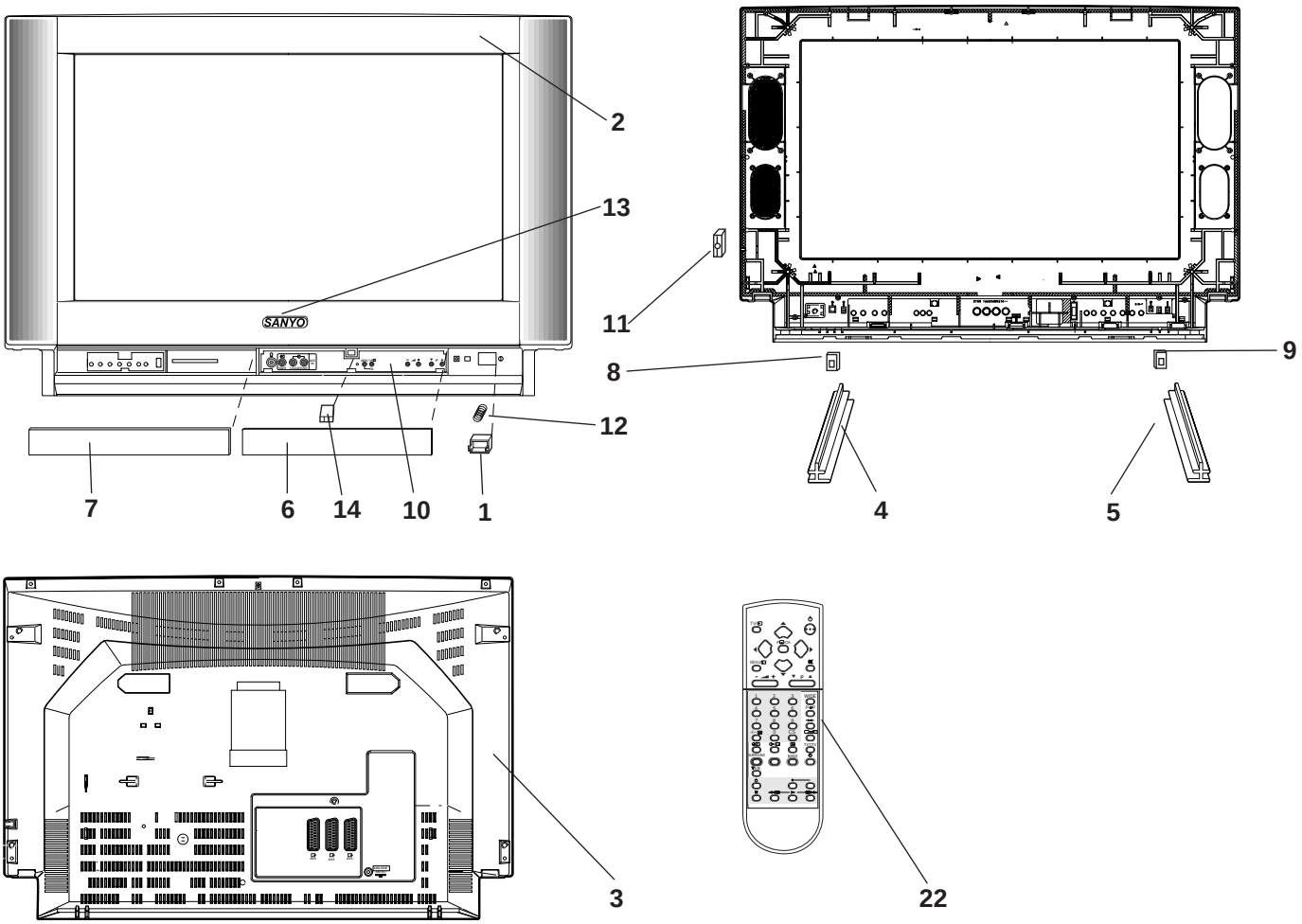
Mark	Type number					
--	2SC536	2SC945A	2SC1815	2SC1740	2SC1740S	KSC945C
A	E, F, G	P, Q, R	O, Y, G	Q, R, S	Q, R, S	
B	E, F, G	P, Q, R	O, Y, G	Q, R, S		
D	F, G	P, Q	Y, G	Q, R, S		
F	F, G	P	G	R, S		
H	F, G	P, Q	Y, G	Q, R, S		Y, G
I	E, F, G	P, Q, R	O, Y, G	Q, R, S		Y, G
G	F, G	P	G	R, S		G
AD	F, G	Q, R	Y, GR		Q, R, S	
AE	E, F, G	Q, R	O, Y, GR		Q, R, S	

● Transistor (PNP type)

Mark	Type number					
--	2SA608	2SA564A	2SA1015	2SA933	2SA933S	KSA733C
Y	E, F	Q, R	O, Y, G	Q, R		
W	F	R	Y, G	R		
V	E, F	Q, R	O, Y, G	Q, R		Y, G
U	F	R	Y, G	R		G
Z	E, F	Q, R	O, Y, G	Q, R	Q, R	
AB	F	R	Y		Q, R	
AE	E, F	Q, R	O, Y		R	

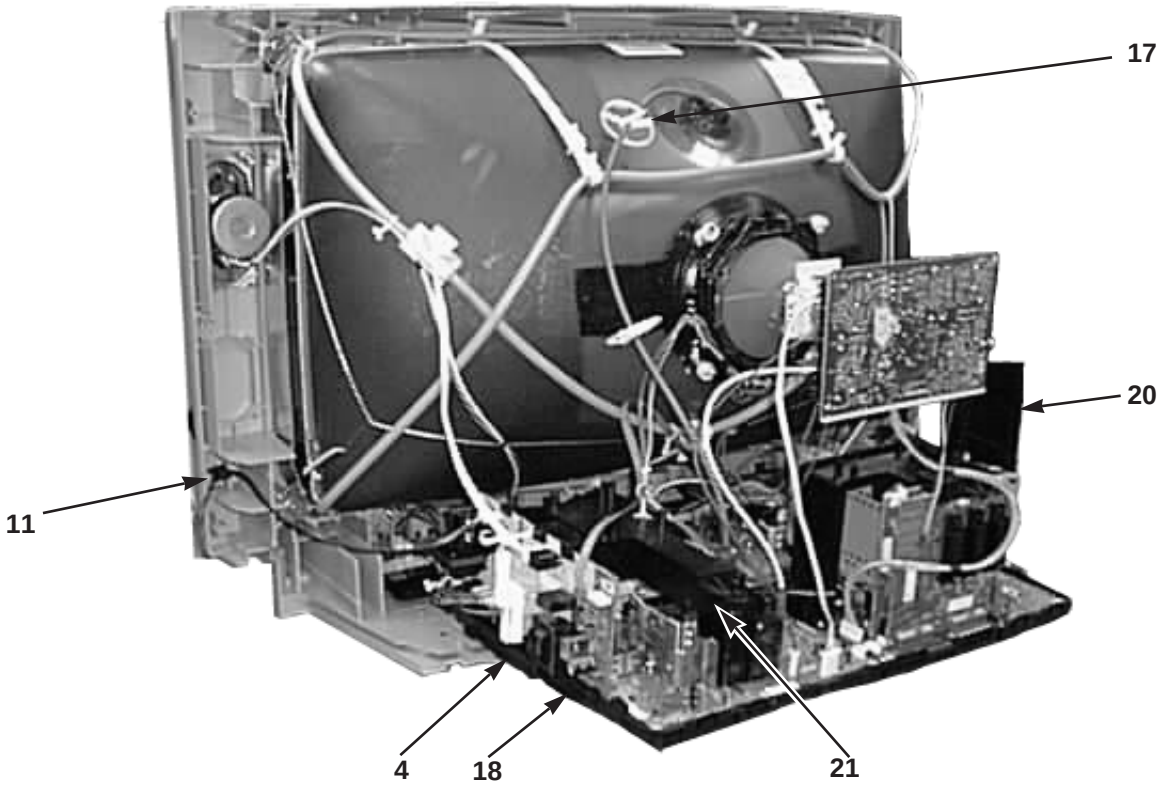
CABINET PARTS LIST

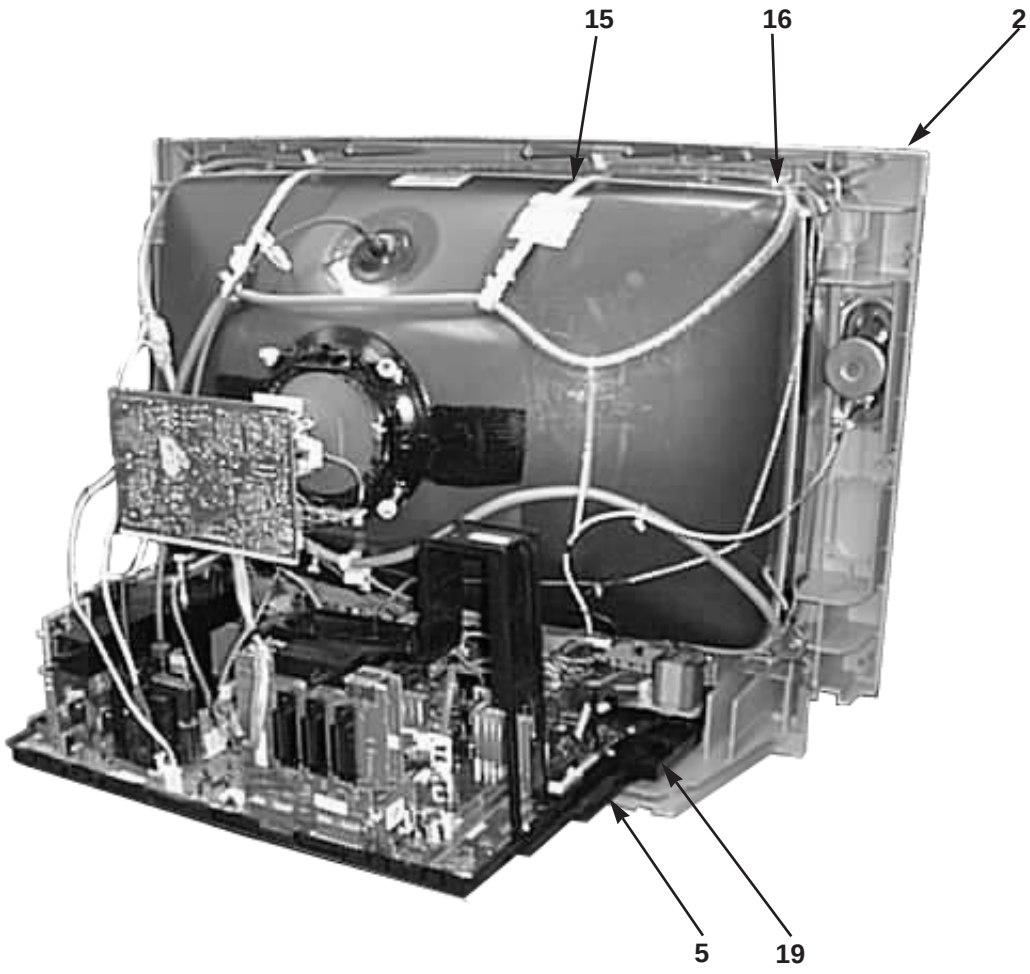
Note: Parts order must contain Service Ref. No., Part No., and descriptions.

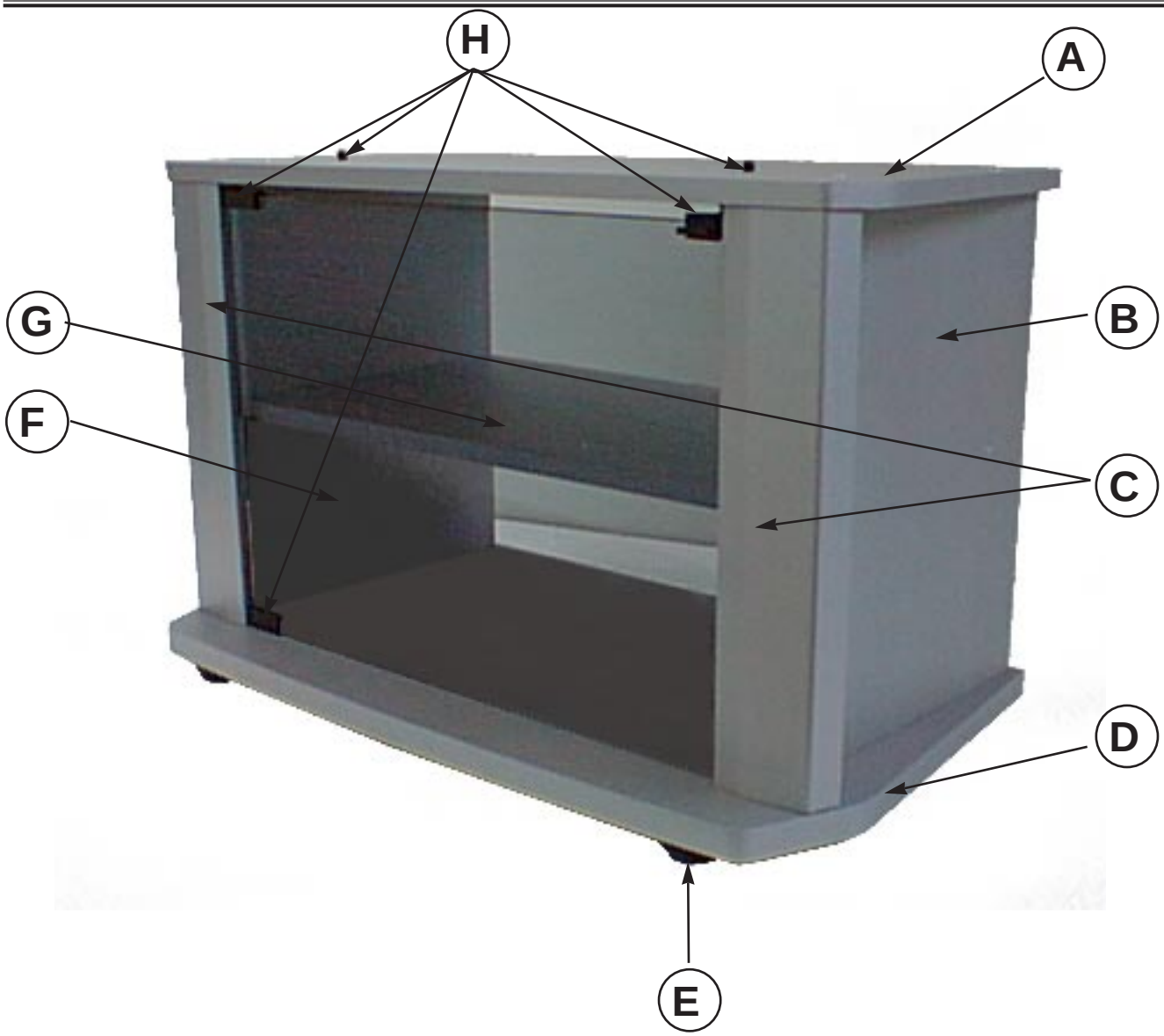


Key No.	Part No.	Description
CABINET PARTS		
1	610 277 5518	BUTTON POWER-F7HB
2	610 280 5529	ASSY,CABINET FR-F7YL
3	610 279 4496	CABINET BACK-F7YA
4	610 266 0852	CHASSIS RAIL R-F3TV
5	610 266 0869	CHASSIS RAIL L-F3TV
6	610 279 4502	DOOR A-F7HL
7	610 279 4243	DOOR B-F7HL
8	610 277 5587	DEC IND A-F7HB
9	610 279 4250	DEC IND B-F7HL
10	610 279 4557	DEC CONTROL SHEET-F7HC
11	610 253 2449	AC CORD HOLDER-U-D4VA
12	610 261 3032	SPRING-E7GC
13	645 034 8228	BADGE,SANYO*53.5X12 BROWN
14	610 104 2505	LATCH PUSH,7.9X6.9BK
15	SKZZ0089	DC HOLDER-F2KA
16	1AA2HLM0111A-	HOLDER DC GBR-HBZ
17	610 235 1347	WIRE HOLDER-E5BE
CHASSIS PARTS		
18	610 279 9842	HOLDER PWB A-F7HB (MAIN,POWER/DEF BOARD)
19	610 279 4601	HOLDER PWB FR-F7YB (FRONT BOARD)
20	610 277 5525	HOLDER PWB A-F7HB (SHIELD CASE)
21	610 277 5532	HOLDER PWB B-F7HB (POWER/DEF BOARD)

Key No.	Part No.	Description
ACCESSORIES		
22	JXMFE	RC TRANSMITTER
	610 279 9989	INST MANUAL-F7HL (1)
	610 280 0180	INST MANUAL-F7HL (2)
	610 280 0197	INST MANUAL-F7HL (3)
	610 280 0005	SCHEMATIC DIAGRAM-F7YL
	645 000 6708	BATTERY


17
20
11
4
18
21


15
16
2
5
19



Item	Part No.	Description
TV STAND-WST3291		
A	SKZZ0139	TOP BOARD-WST3291
B	SKZZ0137	SIDE BOARD-WST3291
C	SKZZ0136	PROFILE-WST3291
D	SKZZ0141	BASE BOARD-WST3291
E	SKZZ0147	CASTON-WST3291 X4
F	SKZZ0143	GLASS DOOR-WST3291
G	SKZZ0145	SHELF-WST3291
H	SKZZ0135	ACCESSORY PACK-WST3291
J	SKZZ0146	SCREW PACK-WST3291

CHASSIS ELECTRICAL PARTS LIST

Product safety should be considered when a component replacement is made in any area of a receiver.
Components indicated by ⚠ mark in this parts list and the circuit diagram show components whose value have special significance to product safety. It is particularly recommended that only parts specified on the following parts list be used for components replacement pointed out by the mark.

Note: Parts order must contain Service Ref. No., Part No., and descriptions. The main unit will be supplied without tuner and lyback f transformer. They should be ordered separately.

Read description in the Capacitor and Resistor as follows:

CAPACITOR
CERAMIC 100P K 50V

Rated Voltage

Tolerance Symbols:
Less than 10PF
A: Not specified B: ±0.1PF C: ±0.25PF
D: ±0.5PF F: ±1PF G: ±2PF
R: ±0.25-0PF S: ±0-0.25PF E: +0-1PF
More than 10PF
A: Not specified B: ±0.1% C: ±0.25%
D: ±0.5% F: ±1% G: ±2%
H: ±3% J: ±5% K: ±10%
L: ±15% M: ±20% N: ±30%
P: +100-0% Q: +30-10% T: +50-10%
U: +75-10% V: +20-10% W: +100-10%
X: +40-20% Y: +150-10% Z: +80-20%

Rated value: P=pico farad, U=Micro farad

Material:

CERAMIC .....Ceramic
MT-PAPER .....Metallized Paper
POLYESTER .....Polyester
MT-POLYEST.....Metallized Polyester
POLYPRO .....Polypropylene
MT-POLYPRO ....Metallized Polypropylene
COMPO FILM.....Composite film
MT-COMPO .....Metallized Composite
STYRENE.....Styrene
TA-SOLID .....Tantalum Solid
AL-SOLID .....Aluminium Solid
ELECT .....Electrolytic
NP-ELECT .....Non-polarized Electrolytic
OS-SOLID .....Aluminium Solid with Organic Semiconductive Electrolytic
DL-ELECT .....Doble Layered Electrolytic

RESISTOR
CARBON 4.7K J A 1/4W

Rated Wattage

Performance Symbols:
A: General B: Non flammable Z : Low noise
Other : Temperature coefficient

Tolerance Symbols:
A: ±0.05% B: ±0.1% C: ±0.25% D: ±0.5%
F: ±1% G: ±2% J: ±5% K: ±10%
M: ±20% P: +5-15%

Rated value, ohms:
K: 1,000, M: 1,000,000

Material:

CARBON .....Carbon
MT-FILM .....Metal Film
OXIDE-MT .....Oxide Metal Film
SOLID .....Composition
MT-GLAZE .....Metal Glaze
WIRE WOUND ....Wire Wound
CERAMIC RES....Ceramic
FUSIBLE RES ....Fusible

Chassis Construction CE32WH3-F

Service Ref. No. CE32WH3-F-01

013F7YL	ELECTRICAL PARTS	Page 37
1AA0B10E473AB	ASSY,PWB,AV SW-F7HL	Page 37
1AA0B10E473BC	ASSY,PWB,FRONT-F7HL	Page 40
1AA0B10E4730A	ASSY,PWB,BACK TER-F7HA/HL	Page 40
1AA0B10E474B0	ASSY,PWB,MAIN-F7HL/YL	Page 41
1AA0B10E475E0	ASSY,PWB,POWER DEF-F7YL	Page 48
1AA0B10E476A0	ASSY,PWB,CRT-F7HL	Page 52
1AA0B10E47700	ASSY,PWB,AUDIO F7HA	Page 53
1AA0B10E478A0	ASSY,PWB,3L Y/C-F7HL	Page 55
1AA0B10E48300	ASSY,PWB,SCAN CONV-F7HL	Page 57
1AA0B10E49100	ASSY,PWB,SUB POWER-F7HL	Page 59
1AA0B10E5170A	ASSY,PWB,HARMONICS-F7HA	Page 60
1AA0B10E5170B	ASSY.PWB,SENSOR-F7HL	Page 60

OUT OF CIRCUIT BOARD 013F7YL

PICTURE TUBE

⚠	Q901	414 010 0804	CRT W76EGV023X122

COIL

⚠	L901	645 030 2626	D/COIL 32 WIDE A1084100

MISCELLANEOUS

	SP901	645 002 4313	SPEAKER,8
		645 032 5687	SPEAKER,8
	SP902	645 002 4313	SPEAKER,8
		645 032 5687	SPEAKER,8
⚠	W901	645 012 7632	ASSY,CORD,POWER
	W902	610 279 8692	ASSY WIRE,GND CONEC.F7YL
	W902A	610 206 0300	GROUNDING SPRING-S4LA
	W902B	610 206 0300	GROUNDING SPRING-S4LA

ASSY,PWB,AV SW-F7HL 1AA0B10E473AB

TRANSISTOR

Q1201	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q1202	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q1203	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q1204	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q1205	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB

Ref. No.	Part No.	Description
	405 015 8902	TR 2SC2812-L7-TB
Q1206	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q1207	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q1208	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q1211	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q1213	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q1215	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q1217	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q1218	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q1219	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q1221	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q1222	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q1223	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q1224	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q1225	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q1226	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q1227	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
INTEGRATED CIRCUIT		
IC1181	409 252 3102	IC NJM2284M-TE2
IC1201	409 419 5406	IC MM1313BD
CAPACITOR		
C1201	403 153 9300	CERAMIC 82P J 50V
C1202	403 200 0700	MT-POLYEST 0.1U J 50V
	403 237 8007	MT-COMPO 0.1U J 50V
C1203	403 125 5002	NP-ELECT 1U M 50V
C1204	403 049 0800	ELECT 1U M 50V
C1205	403 125 5002	NP-ELECT 1U M 50V
C1206	403 049 0800	ELECT 1U M 50V
C1207	403 164 0204	CERAMIC 0.1U Z 25V
C1208	403 042 8308	ELECT 22U M 16V
C1209	403 153 9300	CERAMIC 82P J 50V
C1210	403 164 0204	CERAMIC 0.1U Z 25V
C1211	403 155 8905	NP-ELECT 22U M 10V
C1212	403 155 8905	NP-ELECT 22U M 10V
C1213	403 153 9300	CERAMIC 82P J 50V
C1214	403 200 0700	MT-POLYEST 0.1U J 50V
	403 237 8007	MT-COMPO 0.1U J 50V
C1215	403 153 9300	CERAMIC 82P J 50V
C1216	403 200 0700	MT-POLYEST 0.1U J 50V
	403 237 8007	MT-COMPO 0.1U J 50V
C1217	403 153 9300	CERAMIC 82P J 50V
C1218	403 200 0700	MT-POLYEST 0.1U J 50V
	403 237 8007	MT-COMPO 0.1U J 50V
C1219	403 125 5002	NP-ELECT 1U M 50V
C1220	403 042 3006	ELECT 100U M 16V
C1221	403 125 5002	NP-ELECT 1U M 50V
C1222	403 153 9300	CERAMIC 82P J 50V
C1224	403 125 5002	NP-ELECT 1U M 50V
C1225	403 125 5002	NP-ELECT 1U M 50V
C1226	403 125 5002	NP-ELECT 1U M 50V
C1227	403 125 5002	NP-ELECT 1U M 50V
C1228	403 164 0204	CERAMIC 0.1U Z 25V
C1229	403 125 5002	NP-ELECT 1U M 50V
C1231	403 125 5002	NP-ELECT 1U M 50V
C1232	403 164 0204	CERAMIC 0.1U Z 25V
C1233	403 041 9405	ELECT 10U M 16V
C1234	403 041 9405	ELECT 10U M 16V
C1236	403 041 9405	ELECT 10U M 16V
C1237	403 041 9405	ELECT 10U M 16V
C1238	403 042 3006	ELECT 100U M 16V
C1239	403 164 0204	CERAMIC 0.1U Z 25V
C1240	403 164 0204	CERAMIC 0.1U Z 25V
C1241	403 041 9405	ELECT 10U M 16V
C1242	403 085 4107	NP-ELECT 10U M 16V
C1243	403 041 9405	ELECT 10U M 16V
C1244	403 085 4107	NP-ELECT 10U M 16V
C1245	403 085 4107	NP-ELECT 10U M 16V
C1246	403 085 4107	NP-ELECT 10U M 16V
C1248	403 085 4107	NP-ELECT 10U M 16V
C1249	403 069 8305	CERAMIC 0.01U Z 50V
C1251	403 042 8308	ELECT 22U M 16V
C1252	403 164 0204	CERAMIC 0.1U Z 25V
C1253	403 042 3006	ELECT 100U M 16V
C1254	403 125 5002	NP-ELECT 1U M 50V
C1255	403 200 0700	MT-POLYEST 0.1U J 50V
	403 237 8007	MT-COMPO 0.1U J 50V
C1256	403 125 5002	NP-ELECT 1U M 50V
C1257	403 042 3006	ELECT 100U M 16V

Ref. No.	Part No.	Description
C1260	403 085 4107	NP-ELECT 10U M 16V
C1261	403 164 0204	CERAMIC 0.1U Z 25V
C1262	403 125 5002	NP-ELECT 1U M 50V
C1263	403 125 5002	NP-ELECT 1U M 50V
C1264	403 200 0700	MT-POLYEST 0.1U J 50V
	403 237 8007	MT-COMPO 0.1U J 50V
C1265	403 153 9300	CERAMIC 82P J 50V
C1268	403 042 3006	ELECT 100U M 16V
C1269	403 153 9300	CERAMIC 82P J 50V
C1270	403 085 4107	NP-ELECT 10U M 16V
RESISTOR		
R1200	401 105 0405	MT-GLAZE 100 JA 1/16W
R1201	401 105 3208	MT-GLAZE 270 JA 1/16W
R1202	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R1203	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R1204	401 105 0603	MT-GLAZE 10K JA 1/16W
R1205	401 105 0504	MT-GLAZE 1K JA 1/16W
R1206	401 105 0702	MT-GLAZE 100K JA 1/16W
R1207	401 105 1709	MT-GLAZE 150K JA 1/16W
R1208	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R1209	401 105 0504	MT-GLAZE 1K JA 1/16W
R1210	401 105 5905	MT-GLAZE 560 JA 1/16W
R1211	401 105 0702	MT-GLAZE 100K JA 1/16W
R1212	401 105 1709	MT-GLAZE 150K JA 1/16W
R1213	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R1214	401 105 3208	MT-GLAZE 270 JA 1/16W
R1215	401 105 4205	MT-GLAZE 33K JA 1/16W
R1216	401 105 4205	MT-GLAZE 33K JA 1/16W
R1217	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1218	401 105 4205	MT-GLAZE 33K JA 1/16W
R1219	401 105 4205	MT-GLAZE 33K JA 1/16W
R1221	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1222	401 105 3208	MT-GLAZE 270 JA 1/16W
R1223	401 105 3208	MT-GLAZE 270 JA 1/16W
R1224	401 105 3208	MT-GLAZE 270 JA 1/16W
R1225	401 105 0603	MT-GLAZE 10K JA 1/16W
R1226	401 105 0504	MT-GLAZE 1K JA 1/16W
R1227	401 105 0702	MT-GLAZE 100K JA 1/16W
R1228	401 105 1709	MT-GLAZE 150K JA 1/16W
R1229	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R1230	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R1231	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R1232	401 105 0504	MT-GLAZE 1K JA 1/16W
R1233	401 105 0702	MT-GLAZE 100K JA 1/16W
R1234	401 105 1709	MT-GLAZE 150K JA 1/16W
R1235	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R1236	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R1237	401 105 0702	MT-GLAZE 100K JA 1/16W
R1238	401 105 1709	MT-GLAZE 150K JA 1/16W
R1239	401 105 3208	MT-GLAZE 270 JA 1/16W
R1241	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R1242	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R1243	401 105 0702	MT-GLAZE 100K JA 1/16W
R1244	401 105 1709	MT-GLAZE 150K JA 1/16W
R1245	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R1246	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R1247	401 105 0405	MT-GLAZE 100 JA 1/16W
R1248	401 105 0405	MT-GLAZE 100 JA 1/16W
R1250	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R1251	401 105 0702	MT-GLAZE 100K JA 1/16W
R1252	401 105 5905	MT-GLAZE 560 JA 1/16W
R1253	401 105 5202	MT-GLAZE 470 JA 1/16W
R1254	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1255	401 105 5202	MT-GLAZE 470 JA 1/16W
R1256	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1257	401 105 5905	MT-GLAZE 560 JA 1/16W
R1259	401 105 0702	MT-GLAZE 100K JA 1/16W
R1260	401 105 0504	MT-GLAZE 1K JA 1/16W
R1261	401 105 5202	MT-GLAZE 470 JA 1/16W
R1262	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1263	401 105 5905	MT-GLAZE 560 JA 1/16W
R1266	401 105 0702	MT-GLAZE 100K JA 1/16W
R1267	401 105 5202	MT-GLAZE 470 JA 1/16W
R1268	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1269	401 105 5905	MT-GLAZE 560 JA 1/16W
R127A	401 037 6704	MT-GLAZE 1.2K JA 1/10W
R1270	401 105 5806	MT-GLAZE 56 JA 1/16W
R1272	401 105 0702	MT-GLAZE 100K JA 1/16W
R1273	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R1274	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R1275	401 105 0702	MT-GLAZE 100K JA 1/16W
R1276	401 037 6704	MT-GLAZE 1.2K JA 1/10W
R1277	401 038 9506	MT-GLAZE 75 JA 1/10W
R1278	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R1279	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R128A	401 037 6704	MT-GLAZE 1.2K JA 1/10W
R1280	401 105 5905	MT-GLAZE 560 JA 1/16W
R1281	401 105 0702	MT-GLAZE 100K JA 1/16W
R1282	401 037 6704	MT-GLAZE 1.2K JA 1/10W
R1284	401 105 2706	MT-GLAZE 220 JA 1/16W
R1285	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R1286	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R1287	401 105 0405	MT-GLAZE 100 JA 1/16W
R1288	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1289	401 105 5806	MT-GLAZE 56 JA 1/16W
R129L	401 105 0405	MT-GLAZE 100 JA 1/16W
R129R	401 105 0405	MT-GLAZE 100 JA 1/16W
R129V	401 105 0405	MT-GLAZE 100 JA 1/16W
R1290	401 105 5905	MT-GLAZE 560 JA 1/16W
R1291	401 105 0405	MT-GLAZE 100 JA 1/16W
R1292	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1293	401 105 5806	MT-GLAZE 56 JA 1/16W
R1294	401 105 0405	MT-GLAZE 100 JA 1/16W
R1295	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1297	401 105 0405	MT-GLAZE 100 JA 1/16W
R1298	401 105 5905	MT-GLAZE 560 JA 1/16W
COIL		
L1201	645 008 2863	INDUCTOR,4.7U K
L1202	645 008 2863	INDUCTOR,4.7U K
L1203	645 008 2863	INDUCTOR,4.7U K
L1204	645 008 2863	INDUCTOR,4.7U K
L1205	645 001 4567	INDUCTOR,10U K
L1206	645 001 4727	INDUCTOR,10U K
L1207	645 008 2863	INDUCTOR,4.7U K
L1209	645 008 2863	INDUCTOR,4.7U K
L1210	645 008 2863	INDUCTOR,4.7U K
L1212	645 008 2863	INDUCTOR,4.7U K
DIODE		
D1201	407 187 8209	ZENER DIODE UDZ12B-TE-17
D1204	407 187 8209	ZENER DIODE UDZ12B-TE-17
D1207	407 187 8209	ZENER DIODE UDZ12B-TE-17
D1208	407 187 8209	ZENER DIODE UDZ12B-TE-17
D1209	407 187 8209	ZENER DIODE UDZ12B-TE-17
D1211	407 187 8209	ZENER DIODE UDZ12B-TE-17
D1212	407 187 8209	ZENER DIODE UDZ12B-TE-17
D1213	407 187 8209	ZENER DIODE UDZ12B-TE-17
D1214	407 187 8209	ZENER DIODE UDZ12B-TE-17
D1215	407 187 8209	ZENER DIODE UDZ12B-TE-17
D1216	407 187 8209	ZENER DIODE UDZ12B-TE-17
D1217	407 187 8209	ZENER DIODE UDZ12B-TE-17
D1218	407 187 8209	ZENER DIODE UDZ12B-TE-17
D1219	407 187 8209	ZENER DIODE UDZ12B-TE-17
D1221	407 187 8209	ZENER DIODE UDZ12B-TE-17
D1222	407 187 8209	ZENER DIODE UDZ12B-TE-17
D1223	407 187 8209	ZENER DIODE UDZ12B-TE-17

Ref. No.	Part No.	Description
MISCELLANEOUS		
K12A	645 018 9463	PLUG,PWB-PWB 20P
K12B	645 018 9470	PLUG,PWB-PWB 25P
K12C	645 004 2713	PLUG,5P
K12E	645 008 3327	PLUG,8P

ASSY,PWB,FRONT-F7HL 1AA0B10E473BC

Ref. No.	Part No.	Description
TRANSISTOR		
Q1101	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q1106	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q1903	405 016 9403	TR 2SC3068
CAPACITOR		
C042	403 149 9208	CERAMIC 0.01U Z 50V
C043	403 149 9208	CERAMIC 0.01U Z 50V
C046	403 140 9207	NP-ELECT 10U M 16V
C047	403 140 9207	NP-ELECT 10U M 16V
C049	403 149 9208	CERAMIC 0.01U Z 50V
C050	403 149 9208	CERAMIC 0.01U Z 50V
C1102	403 113 3805	CERAMIC 1000P K 50V
C1103	403 166 1605	NP-ELECT 4.7U M 25V
C1104	403 166 1605	NP-ELECT 4.7U M 25V
C1105	403 043 9106	ELECT 47U M 16V
C1107	403 113 3805	CERAMIC 1000P K 50V
C1108	403 166 1605	NP-ELECT 4.7U M 25V
C1109	403 166 1605	NP-ELECT 4.7U M 25V
C1114	403 149 9208	CERAMIC 0.01U Z 50V
C1115	403 149 9208	CERAMIC 0.01U Z 50V
C1901	403 069 8305	CERAMIC 0.01U Z 50V
C1902	403 041 2109	ELECT 47U M 10V
C1903	403 149 9208	CERAMIC 0.01U Z 50V
RESISTOR		
R046	401 007 7601	CARBON 150 JA 1/2W
R047	401 007 7601	CARBON 150 JA 1/2W
R1101	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R1102	401 105 0702	MT-GLAZE 100K JA 1/16W
R1103	401 105 0702	MT-GLAZE 100K JA 1/16W
R1104	401 105 3000	MT-GLAZE 220K JA 1/16W
R1105	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R1106	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R1107	401 105 0702	MT-GLAZE 100K JA 1/16W
R1108	401 105 0702	MT-GLAZE 100K JA 1/16W
R1109	401 105 3000	MT-GLAZE 220K JA 1/16W
R1110	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R1901	401 105 5202	MT-GLAZE 470 JA 1/16W
R1902	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1903	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R1904	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R1905	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R1906	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R1907	401 105 2102	MT-GLAZE 18K JA 1/16W
R1908	401 105 5400	MT-GLAZE 47K JA 1/16W
R1915	401 105 2904	MT-GLAZE 22K JA 1/16W
R1917	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1918	401 015 1608	CARBON 180 JA 1/4W
R1919	401 105 0405	MT-GLAZE 100 JA 1/16W
R1960	401 105 0603	MT-GLAZE 10K JA 1/16W
R1961	401 105 0405	MT-GLAZE 100 JA 1/16W
COIL		
L041	645 002 1787	CORE,PIPE
L042	645 008 5635	INDUCTOR,12U K
L043	645 008 5635	INDUCTOR,12U K
L1101	645 001 4567	INDUCTOR,10U K
L1106	645 001 4567	INDUCTOR,10U K
L1902	645 001 4727	INDUCTOR,10U K
L1903	645 001 4727	INDUCTOR,10U K
L1904	645 001 4727	INDUCTOR,10U K
L1907	645 001 4727	INDUCTOR,10U K
DIODE		
D1102	407 012 4406	DIODE 1SS133
D1103	407 012 4406	DIODE 1SS133
D1903	407 116 6504	LED SLP-181B-51
D1904	407 012 4406	DIODE 1SS133
D1905	407 099 6508	ZENER DIODE MTZJ12A
	407 099 6607	ZENER DIODE MTZJ12B
D1906	407 012 4406	DIODE 1SS133
D1907	407 012 4406	DIODE 1SS133
D1908	407 099 6508	ZENER DIODE MTZJ12A
	407 099 6607	ZENER DIODE MTZJ12B
D1909	407 099 6508	ZENER DIODE MTZJ12A
	407 099 6607	ZENER DIODE MTZJ12B
D1910	407 099 6904	ZENER DIODE MTZJ15A
	407 099 7000	ZENER DIODE MTZJ15B
MISCELLANEOUS		
A1901	645 007 1546	UNIT,REMOCON RECEIVER
	610 224 5806	RC PREAMP 409-1L
H1901	610 129 7875	FIXER HOOK,D11.5(PA)
K0LP1	645 008 4058	TERMINAL,PLUG
K0LP2	645 008 4058	TERMINAL,PLUG
K0RP1	645 008 4058	TERMINAL,PLUG
K0RP2	645 008 4058	TERMINAL,PLUG
K041	610 009 8053	JACK,PHONE D3.6
K1101	645 035 6698	TERMINAL,BOARD
K19C	645 004 2911	PLUG,5P
K19F	645 004 2980	PLUG,12P
K19H	645 004 2898	PLUG,3P
K19J	645 008 4058	TERMINAL,PLUG
K6S	645 032 8466	PULG,4P(6-2)
SW1901	610 011 4432	SWITCH,PUSH
SW1902	610 011 4432	SWITCH,PUSH
SW1903	610 011 4432	SWITCH,PUSH
SW1904	610 011 4432	SWITCH,PUSH
SW1905	610 011 4432	SWITCH,PUSH
SW1906	610 011 4432	SWITCH,PUSH
SW1907	645 003 4701	SWITCH,PUSH 1P-1TX1
⚠ SW601	645 017 0928	SWITCH,PUSH POWER 2P-2T
	645 024 0607	SWITCH,PUSH POWER 2P-2T

ASSY,PWB,BACK TER-F7HA/HL 1AA0B10E4730A

Ref. No.	Part No.	Description
CAPACITOR		
C1022	403 113 3805	CERAMIC 1000P K 50V
C1024	403 113 3805	CERAMIC 1000P K 50V
C1031	403 157 3601	CERAMIC 100P J 50V
C1032	403 157 3601	CERAMIC 100P J 50V
C1034	403 113 3805	CERAMIC 1000P K 50V
C1035	403 113 3805	CERAMIC 1000P K 50V
C1036	403 157 3601	CERAMIC 100P J 50V
C1037	403 157 3601	CERAMIC 100P J 50V
C1038	403 157 3601	CERAMIC 100P J 50V
C1039	403 157 3601	CERAMIC 100P J 50V
C1041	403 157 3601	CERAMIC 100P J 50V
C1042	403 157 3601	CERAMIC 100P J 50V
C1043	403 157 3601	CERAMIC 100P J 50V
C1044	403 157 3601	CERAMIC 100P J 50V
C1049	403 157 3601	CERAMIC 100P J 50V
C1050	403 157 3601	CERAMIC 100P J 50V
C1051	401 105 7909	MT-GLAZE 0.000 ZA 1/16W

Ref. No.	Part No.	Description
RESISTOR		
R1021	401 105 5905	MT-GLAZE 560 JA 1/16W
R1022	401 105 0504	MT-GLAZE 1K JA 1/16W
R1023	401 105 5905	MT-GLAZE 560 JA 1/16W
R1024	401 105 0504	MT-GLAZE 1K JA 1/16W
R1025	401 105 0405	MT-GLAZE 100 JA 1/16W
R1027	401 113 4402	MT-GLAZE 75 JA 1/16W
R1028	401 113 4402	MT-GLAZE 75 JA 1/16W
R1029	401 113 4402	MT-GLAZE 75 JA 1/16W
R1030	401 113 4402	MT-GLAZE 75 JA 1/16W
R1031	401 113 4402	MT-GLAZE 75 JA 1/16W
R1032	401 105 5905	MT-GLAZE 560 JA 1/16W
R1033	401 105 0504	MT-GLAZE 1K JA 1/16W
R1034	401 105 5905	MT-GLAZE 560 JA 1/16W
R1035	401 105 0504	MT-GLAZE 1K JA 1/16W
R1037	401 105 0405	MT-GLAZE 100 JA 1/16W
R1038	401 113 4402	MT-GLAZE 75 JA 1/16W
R1039	401 113 4402	MT-GLAZE 75 JA 1/16W
R1040	401 105 0504	MT-GLAZE 1K JA 1/16W
R1041	401 105 0504	MT-GLAZE 1K JA 1/16W
R1043	401 105 0405	MT-GLAZE 100 JA 1/16W
R1044	401 113 4402	MT-GLAZE 75 JA 1/16W
R1045	401 022 6801	CARBON 75 JA 1/4W
R1046	401 022 6801	CARBON 75 JA 1/4W
R1047	401 105 0405	MT-GLAZE 100 JA 1/16W
R1048	401 105 0405	MT-GLAZE 100 JA 1/16W
R1049	401 105 0405	MT-GLAZE 100 JA 1/16W
R1051	401 105 0405	MT-GLAZE 100 JA 1/16W
COIL		
L1022	645 001 4567	INDUCTOR,10U K
L1023	645 001 4567	INDUCTOR,10U K
L1024	645 001 4567	INDUCTOR,10U K
L1025	645 001 4567	INDUCTOR,10U K
L1026	645 002 1787	CORE,PIPE
L1028	645 001 4567	INDUCTOR,10U K
L1029	645 001 4567	INDUCTOR,10U K
L1030	645 001 4567	INDUCTOR,10U K
L1031	645 001 4567	INDUCTOR,10U K
L1032	645 002 1787	CORE,PIPE
L1034	645 001 4567	INDUCTOR,10U K
L1035	645 001 4567	INDUCTOR,10U K
L1036	645 002 1787	CORE,PIPE
DIODE		
D1021	407 187 8209	ZENER DIODE UDZ12B-TE-17
D1022	407 187 8209	ZENER DIODE UDZ12B-TE-17
D1023	407 187 8209	ZENER DIODE UDZ12B-TE-17
D1024	407 187 8209	ZENER DIODE UDZ12B-TE-17
D1025	407 187 8209	ZENER DIODE UDZ12B-TE-17
D1026	407 187 8209	ZENER DIODE UDZ12B-TE-17
D1027	407 187 8209	ZENER DIODE UDZ12B-TE-17
D1028	407 187 8209	ZENER DIODE UDZ12B-TE-17
D1029	407 187 8209	ZENER DIODE UDZ12B-TE-17
D1031	407 187 8209	ZENER DIODE UDZ12B-TE-17
MISCELLANEOUS		
K10C	645 037 5668	SOCKET,PWB-PWB 15P
K10D	645 037 5668	SOCKET,PWB-PWB 15P
K10E	645 008 3327	PLUG,8P
K10G	645 004 2881	PLUG,2P
K1001	645 025 1047	SOCKET,RGB 21P
K1002	645 025 1047	SOCKET,RGB 21P
K1003	645 025 1047	SOCKET,RGB 21P

ASSY,PWB,MAIN-F7HL/YL 1AA0B10E474B0

TRANSISTOR		
Q001	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q101	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q131	405 015 9701	TR 2SC2814-F4-TB
	405 015 9909	TR 2SC2814-F5-TB
Q132	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q133	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q134	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q136	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q137	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q139	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q141	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q142	405 003 2004	TR 2SA1252-D6-TB
Q1803	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q1804	405 142 7205	TR DTC124TKA-T146
Q1806	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q1807	405 142 7205	TR DTC124TKA-T146
Q181	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2309	TR 2SC1815-Y
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
Q1812	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q1813	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q182	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2309	TR 2SC1815-Y
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA

Ref. No.	Part No.	Description
Q201	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q202	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q203	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q233	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q234	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q235	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q236	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q237	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q301	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q302	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q303	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q304	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q305	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q306	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q307	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q308	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q351	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q352	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q353	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q354	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q355	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q356	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q357	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q359	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q362	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q363	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q364	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q365	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q366	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q368	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q369	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q371	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q372	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q376	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q377	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB

Ref. No.	Part No.	Description
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q378	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q801	405 149 1701	TR DTC143TKA T146
Q802	405 149 1701	TR DTC143TKA T146
Q803	405 149 1701	TR DTC143TKA T146
Q804	405 149 1701	TR DTC143TKA T146
Q808	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q812	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q813	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
INTEGRATED CIRCUIT		
IC001	409 379 2903	IC TA8200AH
IC101	410 352 5101	IC TDA9321H/N2C
IC201	409 436 3706	IC TDA9178T/N1
IC202	QXXAVB544—-	IC TDA9330H/N2C
IC301	409 400 7105	IC TC7W53FU-(TE12L)
IC302	409 459 2106	IC TC7SET32F
IC351	409 039 5404	IC NJM2058M-TE2
IC671	409 429 1306	IC BA12T
IC672	409 440 3303	IC BA09T
IC673	409 438 9300	IC BA08T(TO220FP)
IC674	409 416 7908	IC BA05T
IC676	409 429 1306	IC BA12T
IC801	410 329 1600	IC ST92R195
IC801A	410 328 2400	IC M27C1001-12B1
	410 349 4001	IC MX27C1000PC-12
IC802	410 356 4209	IC PROM 1MB F7YL
IC803	409 383 6805	IC 24LC08B/P
IC804	409 199 4705	IC MC14066BFL
IC806	409 199 4705	IC MC14066BFL
IC807	409 460 0306	IC PCF8574AT
IC808	409 460 0306	IC PCF8574AT
IC809	409 387 4104	IC CXA1315M-T4
IC811	409 301 2803	IC MN1381-Q
CAPACITOR		
C001	403 043 6006	ELECT 330U M 16V
C002	403 168 6509	MT-POLYEST 0.47U J 50V
	403 256 0808	MT-COMPO 0.47U J 50V
	403 264 2207	MT-COMPO 0.47U J 50V
C003	403 155 2101	CERAMIC 1500P K 50V
C004	403 260 2003	MT-COMPO 1U J 50V
	403 270 2109	MT-COMPO 1U J 50V
C005	403 298 9609	CERAMIC 0.1U K 16V
C006	403 043 6006	ELECT 330U M 16V
C007	403 168 6509	MT-POLYEST 0.47U J 50V
	403 256 0808	MT-COMPO 0.47U J 50V
	403 264 2207	MT-COMPO 0.47U J 50V
C008	403 155 2101	CERAMIC 1500P K 50V
C009	403 260 2003	MT-COMPO 1U J 50V
	403 270 2109	MT-COMPO 1U J 50V
C011	403 047 3100	ELECT 47U M 25V
C012	403 047 3100	ELECT 47U M 25V
C013	403 053 3606	ELECT 2200U M 35V
C014	403 049 9803	ELECT 2.2U M 50V
C017	403 200 0700	MT-POLYEST 0.1U J 50V

Ref. No.	Part No.	Description
	403 237 8007	MT-COMPO 0.1U J 50V
C018	403 200 0700	MT-POLYEST 0.1U J 50V
	403 237 8007	MT-COMPO 0.1U J 50V
C019	403 053 3606	ELECT 2200U M 35V
C021	403 053 3606	ELECT 2200U M 35V
C022	403 200 0700	MT-POLYEST 0.1U J 50V
	403 237 8007	MT-COMPO 0.1U J 50V
C023	403 200 0700	MT-POLYEST 0.1U J 50V
	403 237 8007	MT-COMPO 0.1U J 50V
C101	403 041 2109	ELECT 47U M 10V
C102	403 039 3507	ELECT 470U M 6.3V
C103	403 039 3507	ELECT 470U M 6.3V
C104	403 049 4204	ELECT 10U M 50V
C106	403 039 3507	ELECT 470U M 6.3V
C107	403 157 3304	CERAMIC 68P J 50V
C109	403 149 9208	CERAMIC 0.01U Z 50V
C110	403 149 9208	CERAMIC 0.01U Z 50V
C1183	403 149 9208	CERAMIC 0.01U Z 50V
C130	403 149 9208	CERAMIC 0.01U Z 50V
C131	403 149 9208	CERAMIC 0.01U Z 50V
C136	403 149 9208	CERAMIC 0.01U Z 50V
C137	403 149 9208	CERAMIC 0.01U Z 50V
C138	403 149 9208	CERAMIC 0.01U Z 50V
C139	403 049 9803	ELECT 2.2U M 50V
C141	403 048 6308	ELECT 0.47U M 50V
C142	403 200 0700	MT-POLYEST 0.1U J 50V
	403 237 8007	MT-COMPO 0.1U J 50V
C144	403 041 2109	ELECT 47U M 10V
C145	403 149 9208	CERAMIC 0.01U Z 50V
C146	403 149 9208	CERAMIC 0.01U Z 50V
C147	403 149 9208	CERAMIC 0.01U Z 50V
C148	403 145 9905	CERAMIC 22P J 50V
C149	403 155 4204	CERAMIC 15P J 50V
C151	403 179 4501	NP-ELECT 0.47U M 50V
C152	403 169 2807	CERAMIC 330P J 50V
C153	403 155 2200	CERAMIC 3300P K 50V
C154	403 179 4501	NP-ELECT 0.47U M 50V
C155	403 179 4501	NP-ELECT 0.47U M 50V
C156	403 200 0700	MT-POLYEST 0.1U J 50V
	403 237 8007	MT-COMPO 0.1U J 50V
C157	403 149 9208	CERAMIC 0.01U Z 50V
C158	403 040 7501	ELECT 33U M 10V
C159	403 069 8305	CERAMIC 0.01U Z 50V
C160	403 069 8305	CERAMIC 0.01U Z 50V
C163	403 042 7707	ELECT 22U M 16V
C1802	403 149 9208	CERAMIC 0.01U Z 50V
C1803	403 113 3805	CERAMIC 1000P K 50V
C1804	403 113 3805	CERAMIC 1000P K 50V
C181	403 258 9106	NP-ELECT 47U M 16V
C182	403 298 9609	CERAMIC 0.1U K 16V
C183	403 298 9609	CERAMIC 0.1U K 16V
C184	403 298 9609	CERAMIC 0.1U K 16V
C185	403 149 9208	CERAMIC 0.01U Z 50V
C186	403 298 9609	CERAMIC 0.1U K 16V
C187	403 298 9609	CERAMIC 0.1U K 16V
C188	403 041 2109	ELECT 47U M 10V
C189	403 149 9208	CERAMIC 0.01U Z 50V
C190	403 041 2109	ELECT 47U M 10V
C191	403 298 9609	CERAMIC 0.1U K 16V
C192	403 149 9208	CERAMIC 0.01U Z 50V
C193	403 149 9208	CERAMIC 0.01U Z 50V
C195	403 049 9803	ELECT 2.2U M 50V
C197	403 298 9609	CERAMIC 0.1U K 16V
C198	403 298 9609	CERAMIC 0.1U K 16V
C199	403 298 9609	CERAMIC 0.1U K 16V
C201	403 060 5402	POLYESTER 3300P J 50V
	403 179 1906	POLYESTER 3300P J 50V
C202	403 200 0700	MT-POLYEST 0.1U J 50V
	403 237 8007	MT-COMPO 0.1U J 50V

Ref. No.	Part No.	Description			Ref. No.	Part No.	Description		
C203	403 168 8800	MT-POLYEST	0.22U	J 50V	C358	403 049 0008	ELECT	1U	M 50V
	403 237 7901	MT-COMPO	0.22U	J 50V	C359	403 049 0008	ELECT	1U	M 50V
C204	403 139 7306	CERAMIC	18P	J 50V	C360	403 049 0008	ELECT	1U	M 50V
C205	403 157 3304	CERAMIC	68P	J 50V	C361	403 260 2904	MT-COMPO	0.33U	J 50V
C208	403 139 7306	CERAMIC	18P	J 50V		403 256 4608	MT-COMPO	0.33U	J 50V
C209	403 049 0008	ELECT	1U	M 50V	C362	403 149 9208	CERAMIC	0.01U	Z 50V
C210	403 113 3805	CERAMIC	1000P	K 50V	C363	403 260 2904	MT-COMPO	0.33U	J 50V
C211	403 061 8303	POLYESTER	4700P	K 50V		403 256 4608	MT-COMPO	0.33U	J 50V
	403 179 1104	POLYESTER	4700P	K 50V	C364	403 140 9207	NP-ELECT	10U	M 16V
C212	403 149 9208	CERAMIC	0.01U	Z 50V	C366	403 149 9208	CERAMIC	0.01U	Z 50V
C213	403 041 4509	ELECT	470U	M 10V	C367	403 260 2508	MT-COMPO	0.18U	J 50V
C214	403 149 9208	CERAMIC	0.01U	Z 50V		403 264 1903	MT-COMPO	0.18U	J 50V
C216	403 041 2109	ELECT	47U	M 10V	C369	403 149 9208	CERAMIC	0.01U	Z 50V
C217	403 179 4501	NP-ELECT	0.47U	M 50V	C671	403 149 9208	CERAMIC	0.01U	Z 50V
C218	403 179 4501	NP-ELECT	0.47U	M 50V	C673	403 149 9208	CERAMIC	0.01U	Z 50V
C219	403 179 4501	NP-ELECT	0.47U	M 50V	C674	403 047 5005	ELECT	470U	M 25V
C221	403 298 9609	CERAMIC	0.1U	K 16V	C675	403 042 2405	ELECT	100U	M 16V
C222	403 041 4509	ELECT	470U	M 10V	C676	403 043 6006	ELECT	330U	M 16V
C223	403 298 9609	CERAMIC	0.1U	K 16V	C677	403 149 9208	CERAMIC	0.01U	Z 50V
C224	403 298 9609	CERAMIC	0.1U	K 16V	C678	403 041 2109	ELECT	47U	M 10V
C225	403 298 9609	CERAMIC	0.1U	K 16V	C679	403 149 9208	CERAMIC	0.01U	Z 50V
C231	403 200 0700	MT-POLYEST	0.1U	J 50V	C681	403 047 3100	ELECT	47U	M 25V
	403 237 8007	MT-COMPO	0.1U	J 50V	C682	403 149 9208	CERAMIC	0.01U	Z 50V
C232	403 041 2109	ELECT	47U	M 10V	C683	403 043 0202	ELECT	220U	M 16V
C233	403 149 9208	CERAMIC	0.01U	Z 50V	C684	403 041 2109	ELECT	47U	M 10V
C234	403 200 0700	MT-POLYEST	0.1U	J 50V	C685	403 047 3100	ELECT	47U	M 25V
	403 237 8007	MT-COMPO	0.1U	J 50V	C686	403 149 9208	CERAMIC	0.01U	Z 50V
C235	403 113 3805	CERAMIC	1000P	K 50V	C687	403 041 2109	ELECT	47U	M 10V
C236	403 200 0700	MT-POLYEST	0.1U	J 50V	C688	403 044 9501	ELECT	100U	M 25V
	403 237 8007	MT-COMPO	0.1U	J 50V	C689	403 149 9208	CERAMIC	0.01U	Z 50V
C237	403 113 3805	CERAMIC	1000P	K 50V	C690	403 149 9208	CERAMIC	0.01U	Z 50V
C241	403 179 4501	NP-ELECT	0.47U	M 50V	C691	403 042 2405	ELECT	100U	M 16V
C242	403 179 4501	NP-ELECT	0.47U	M 50V	C692	403 149 9208	CERAMIC	0.01U	Z 50V
C243	403 179 4501	NP-ELECT	0.47U	M 50V	C801	403 041 2109	ELECT	47U	M 10V
C247	403 298 9609	CERAMIC	0.1U	K 16V	C802	403 149 9208	CERAMIC	0.01U	Z 50V
C248	403 298 9609	CERAMIC	0.1U	K 16V	C803	403 157 2505	CERAMIC	27P	J 50V
C249	403 298 9609	CERAMIC	0.1U	K 16V	C804	403 157 2505	CERAMIC	27P	J 50V
C251	403 008 5105	CERAMIC	10P	D 50V	C806	403 041 2109	ELECT	47U	M 10V
C256	403 149 9208	CERAMIC	0.01U	Z 50V	C807	403 149 9208	CERAMIC	0.01U	Z 50V
C257	403 041 2109	ELECT	47U	M 10V	C808	403 041 2109	ELECT	47U	M 10V
C258	403 113 3805	CERAMIC	1000P	K 50V	C809	403 041 2109	ELECT	47U	M 10V
C259	403 155 1500	CERAMIC	180P	J 50V	C811	403 168 8800	MT-POLYEST	0.22U	J 50V
C261	403 157 2901	CERAMIC	47P	J 50V		403 237 7901	MT-COMPO	0.22U	J 50V
C262	403 049 0008	ELECT	1U	M 50V	C812	403 157 4202	CERAMIC	220P	J 50V
C263	403 215 1006	CERAMIC	470P	J 50V	C813	403 149 9208	CERAMIC	0.01U	Z 50V
C264	403 298 9609	CERAMIC	0.1U	K 16V	C814	403 041 2109	ELECT	47U	M 10V
C265	403 179 6000	ELECT	2200U	M 10V	C816	403 061 8303	POLYESTER	4700P	K 50V
C266	403 233 0104	ELECT	3300U	M 10V		403 179 1104	POLYESTER	4700P	K 50V
C267	403 149 9208	CERAMIC	0.01U	Z 50V	C817	403 145 9905	CERAMIC	22P	J 50V
C270	403 041 2109	ELECT	47U	M 10V	C818	403 061 8303	POLYESTER	4700P	K 50V
C272	403 075 6906	CERAMIC	100P	K 500V		403 179 1104	POLYESTER	4700P	K 50V
C301	403 157 3809	CERAMIC	120P	J 50V	C819	403 145 9905	CERAMIC	22P	J 50V
C302	403 039 6508	ELECT	100U	M 10V	C820	403 149 9208	CERAMIC	0.01U	Z 50V
C303	403 041 2109	ELECT	47U	M 10V	C821	403 049 0008	ELECT	1U	M 50V
C304	403 149 9208	CERAMIC	0.01U	Z 50V	C822	403 059 3808	POLYESTER	2200P	K 50V
C305	403 155 1609	CERAMIC	33P	J 50V		403 179 2606	POLYESTER	2200P	K 50V
C306	403 046 9905	ELECT	4.7U	M 25V	C823	403 043 9106	ELECT	47U	M 16V
C307	403 200 0700	MT-POLYEST	0.1U	J 50V	C824	403 153 9300	CERAMIC	82P	J 50V
	403 237 8007	MT-COMPO	0.1U	J 50V	C825	403 056 9704	POLYESTER	0.01U	J 50V
C308	403 041 2109	ELECT	47U	M 10V		403 178 9309	POLYESTER	0.01U	J 50V
C309	403 149 9208	CERAMIC	0.01U	Z 50V	C826	403 179 4501	NP-ELECT	0.47U	M 50V
C310	403 149 9208	CERAMIC	0.01U	Z 50V	C827	403 075 9006	CERAMIC	150P	K 500V
C351	403 149 9208	CERAMIC	0.01U	Z 50V	C828	403 298 9609	CERAMIC	0.1U	K 16V
C352	403 200 0700	MT-POLYEST	0.1U	J 50V	C829	403 041 2109	ELECT	47U	M 10V
	403 237 8007	MT-COMPO	0.1U	J 50V	C831	403 149 9208	CERAMIC	0.01U	Z 50V
C353	403 206 5303	MT-POLYEST	0.27U	J 50V	C833	403 149 9208	CERAMIC	0.01U	Z 50V
	403 219 4904	MT-COMPO	0.27U	J 50V	C834	403 149 9208	CERAMIC	0.01U	Z 50V
C354	403 046 9905	ELECT	4.7U	M 25V	C836	403 149 9208	CERAMIC	0.01U	Z 50V
C357	403 157 3601	CERAMIC	100P	J 50V	C837	403 149 9208	CERAMIC	0.01U	Z 50V

Ref. No.	Part No.	Description
C838	403 041 2109	ELECT 47U M 10V
C839	403 149 9208	CERAMIC 0.01U Z 50V
C840	403 041 2109	ELECT 47U M 10V
C841	403 149 9208	CERAMIC 0.01U Z 50V
C843	403 149 9208	CERAMIC 0.01U Z 50V
C844	403 041 2109	ELECT 47U M 10V
C851	403 113 3805	CERAMIC 1000P K 50V
C855	403 041 0709	ELECT 3300U M 10V
C856	403 041 0709	ELECT 3300U M 10V
RESISTOR		
R001	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R002	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R003	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R004	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R006	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R007	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R008	401 105 0603	MT-GLAZE 10K JA 1/16W
R009	401 105 4205	MT-GLAZE 33K JA 1/16W
R011	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R012	401 008 3701	CARBON 2.2 JA 1/2W
R013	401 008 3701	CARBON 2.2 JA 1/2W
R014	401 022 1905	CARBON 680 JA 1/4W
R016	401 022 1905	CARBON 680 JA 1/4W
R017	401 105 0504	MT-GLAZE 1K JA 1/16W
R018	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R019	401 105 0504	MT-GLAZE 1K JA 1/16W
R020	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R101	401 105 1105	MT-GLAZE 12K JA 1/16W
R102	401 105 2706	MT-GLAZE 220 JA 1/16W
R103	401 105 2706	MT-GLAZE 220 JA 1/16W
R104	401 105 0702	MT-GLAZE 100K JA 1/16W
R106	401 105 0702	MT-GLAZE 100K JA 1/16W
R108	401 105 8104	MT-GLAZE 56K JA 1/16W
R109	401 105 0603	MT-GLAZE 10K JA 1/16W
R111	401 105 0702	MT-GLAZE 100K JA 1/16W
R112	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R113	401 105 0504	MT-GLAZE 1K JA 1/16W
R1181	401 105 0504	MT-GLAZE 1K JA 1/16W
R1182	401 105 0702	MT-GLAZE 100K JA 1/16W
R1183	401 105 0702	MT-GLAZE 100K JA 1/16W
R128	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R131	401 105 5103	MT-GLAZE 47 JA 1/16W
R133	401 105 0504	MT-GLAZE 1K JA 1/16W
R134	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R136	401 105 0900	MT-GLAZE 120 JA 1/16W
R137	401 105 3109	MT-GLAZE 27 JA 1/16W
R138	401 105 8203	MT-GLAZE 68K JA 1/16W
R139	401 105 2904	MT-GLAZE 22K JA 1/16W
R140	401 105 0405	MT-GLAZE 100 JA 1/16W
R141	401 105 3406	MT-GLAZE 27K JA 1/16W
R142	401 105 0603	MT-GLAZE 10K JA 1/16W
R143	401 105 0603	MT-GLAZE 10K JA 1/16W
R144	401 105 5806	MT-GLAZE 56 JA 1/16W
R145	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R146	401 105 0603	MT-GLAZE 10K JA 1/16W
R147	401 105 5905	MT-GLAZE 560 JA 1/16W
R148	401 105 0900	MT-GLAZE 120 JA 1/16W
R149	401 105 0504	MT-GLAZE 1K JA 1/16W
R151	401 105 2706	MT-GLAZE 220 JA 1/16W
R152	401 105 0504	MT-GLAZE 1K JA 1/16W
R153	401 105 0504	MT-GLAZE 1K JA 1/16W
R154	401 105 0504	MT-GLAZE 1K JA 1/16W
R156	401 105 0504	MT-GLAZE 1K JA 1/16W
R157	401 105 5202	MT-GLAZE 470 JA 1/16W
R158	401 105 7404	MT-GLAZE 8.2K JA 1/16W
R159	401 105 0504	MT-GLAZE 1K JA 1/16W
R160	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R161	401 105 4502	MT-GLAZE 390 JA 1/16W
R162	401 105 0504	MT-GLAZE 1K JA 1/16W
R163	401 105 0504	MT-GLAZE 1K JA 1/16W
R164	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R169	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R171	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R172	401 105 5202	MT-GLAZE 470 JA 1/16W
R173	401 105 5202	MT-GLAZE 470 JA 1/16W
R174	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R175	401 113 5102	MT-GLAZE 300 JA 1/16W
R176	401 105 3208	MT-GLAZE 270 JA 1/16W
R177	401 105 5806	MT-GLAZE 56 JA 1/16W
R178	401 105 0603	MT-GLAZE 10K JA 1/16W
R1806	401 105 0405	MT-GLAZE 100 JA 1/16W
R1807	401 105 4700	MT-GLAZE 39K JA 1/16W
R1808	401 105 4700	MT-GLAZE 39K JA 1/16W
R1809	401 105 5400	MT-GLAZE 47K JA 1/16W
R181	401 105 0405	MT-GLAZE 100 JA 1/16W
R1812	401 105 2904	MT-GLAZE 22K JA 1/16W
R1813	401 105 0603	MT-GLAZE 10K JA 1/16W
R1814	401 105 0405	MT-GLAZE 100 JA 1/16W
R1816	401 105 0603	MT-GLAZE 10K JA 1/16W
R182	401 105 5905	MT-GLAZE 560 JA 1/16W
R1823	401 105 4205	MT-GLAZE 33K JA 1/16W
R1824	401 105 0504	MT-GLAZE 1K JA 1/16W
R1826	401 105 4205	MT-GLAZE 33K JA 1/16W
R1827	401 105 0603	MT-GLAZE 10K JA 1/16W
R1836	401 105 2904	MT-GLAZE 22K JA 1/16W
R1838	401 105 0603	MT-GLAZE 10K JA 1/16W
R184	401 105 0405	MT-GLAZE 100 JA 1/16W
R1843	401 105 0405	MT-GLAZE 100 JA 1/16W
R1844	401 105 0405	MT-GLAZE 100 JA 1/16W
R1846	401 105 0405	MT-GLAZE 100 JA 1/16W
R1847	401 105 0405	MT-GLAZE 100 JA 1/16W
R1856	401 105 2904	MT-GLAZE 22K JA 1/16W
R186	401 105 3208	MT-GLAZE 270 JA 1/16W
R1861	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R1862	401 113 6703	MT-GLAZE 9.1K JA 1/16W
R1863	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R1864	401 113 6703	MT-GLAZE 9.1K JA 1/16W
R1866	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R1867	401 113 6703	MT-GLAZE 9.1K JA 1/16W
R187	401 105 0405	MT-GLAZE 100 JA 1/16W
R188	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R189	401 105 0603	MT-GLAZE 10K JA 1/16W
R191	401 105 2706	MT-GLAZE 220 JA 1/16W
R192	401 105 2706	MT-GLAZE 220 JA 1/16W
R193	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R201	401 105 0702	MT-GLAZE 100K JA 1/16W
R202	401 105 1600	MT-GLAZE 15K JA 1/16W
R203	401 105 0405	MT-GLAZE 100 JA 1/16W
R204	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R206	401 105 5806	MT-GLAZE 56 JA 1/16W
R207	401 105 0405	MT-GLAZE 100 JA 1/16W
R208	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R209	401 105 5806	MT-GLAZE 56 JA 1/16W
R210	401 105 0405	MT-GLAZE 100 JA 1/16W
R211	401 105 0405	MT-GLAZE 100 JA 1/16W
R212	401 105 1006	MT-GLAZE 1.2K JA 1/16W
R213	401 105 5806	MT-GLAZE 56 JA 1/16W
R216	401 105 0702	MT-GLAZE 100K JA 1/16W
R217	401 105 0702	MT-GLAZE 100K JA 1/16W
R218	401 105 2706	MT-GLAZE 220 JA 1/16W
R219	401 105 2706	MT-GLAZE 220 JA 1/16W
R220	401 105 2904	MT-GLAZE 22K JA 1/16W
R221	401 105 3901	MT-GLAZE 33 JA 1/16W
R222	401 105 3901	MT-GLAZE 33 JA 1/16W
R223	401 105 3901	MT-GLAZE 33 JA 1/16W
R224	401 105 2904	MT-GLAZE 22K JA 1/16W
R225	401 105 8104	MT-GLAZE 56K JA 1/16W

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
R226	401 105 4205	MT-GLAZE 33K JA 1/16W	R323	401 105 6506	MT-GLAZE 680 JA 1/16W
R231	401 105 0405	MT-GLAZE 100 JA 1/16W	R324	401 105 6506	MT-GLAZE 680 JA 1/16W
R232	401 105 0405	MT-GLAZE 100 JA 1/16W	R326	401 105 5806	MT-GLAZE 56 JA 1/16W
R234	401 105 0405	MT-GLAZE 100 JA 1/16W	R327	401 105 0702	MT-GLAZE 100K JA 1/16W
R235	401 105 4205	MT-GLAZE 33K JA 1/16W	R328	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R236	401 105 2706	MT-GLAZE 220 JA 1/16W	R330	401 105 1709	MT-GLAZE 150K JA 1/16W
R237	401 105 2706	MT-GLAZE 220 JA 1/16W	R331	401 105 5806	MT-GLAZE 56 JA 1/16W
R238	401 105 4700	MT-GLAZE 39K JA 1/16W	R333	401 105 8104	MT-GLAZE 56K JA 1/16W
R239	401 105 0405	MT-GLAZE 100 JA 1/16W	R334	401 105 7602	MT-GLAZE 820K JA 1/16W
R241	401 105 0405	MT-GLAZE 100 JA 1/16W	R335	401 105 5400	MT-GLAZE 47K JA 1/16W
R242	401 105 0405	MT-GLAZE 100 JA 1/16W	R336	401 105 5400	MT-GLAZE 47K JA 1/16W
R243	401 105 0405	MT-GLAZE 100 JA 1/16W	R337	401 105 0603	MT-GLAZE 10K JA 1/16W
R244	401 105 0405	MT-GLAZE 100 JA 1/16W	R338	401 105 4700	MT-GLAZE 39K JA 1/16W
R245	401 105 0405	MT-GLAZE 100 JA 1/16W	R339	401 105 0504	MT-GLAZE 1K JA 1/16W
R246	401 105 0405	MT-GLAZE 100 JA 1/16W	R340	401 105 5806	MT-GLAZE 56 JA 1/16W
R247	401 105 0405	MT-GLAZE 100 JA 1/16W	R342	401 105 1600	MT-GLAZE 15K JA 1/16W
R248	401 105 0405	MT-GLAZE 100 JA 1/16W	R343	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R250	401 105 0603	MT-GLAZE 10K JA 1/16W	R345	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R251	401 105 1006	MT-GLAZE 1.2K JA 1/16W	R346	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R252	401 105 1006	MT-GLAZE 1.2K JA 1/16W	R351	401 105 0603	MT-GLAZE 10K JA 1/16W
R253	401 105 1006	MT-GLAZE 1.2K JA 1/16W	R352	401 105 0603	MT-GLAZE 10K JA 1/16W
R255	401 105 2706	MT-GLAZE 220 JA 1/16W	R353	401 105 0603	MT-GLAZE 10K JA 1/16W
R259	401 105 4502	MT-GLAZE 390 JA 1/16W	R354	401 105 0603	MT-GLAZE 10K JA 1/16W
R261	401 105 0504	MT-GLAZE 1K JA 1/16W	R355	401 105 0603	MT-GLAZE 10K JA 1/16W
R262	401 105 0603	MT-GLAZE 10K JA 1/16W	R356	401 105 0603	MT-GLAZE 10K JA 1/16W
R263	401 105 2706	MT-GLAZE 220 JA 1/16W	R357	401 105 0504	MT-GLAZE 1K JA 1/16W
R264	401 105 5806	MT-GLAZE 56 JA 1/16W	R358	401 105 3406	MT-GLAZE 27K JA 1/16W
R265	401 105 0603	MT-GLAZE 10K JA 1/16W	R359	401 105 0504	MT-GLAZE 1K JA 1/16W
R266	401 105 5806	MT-GLAZE 56 JA 1/16W	R361	401 105 2102	MT-GLAZE 18K JA 1/16W
R267	401 105 0504	MT-GLAZE 1K JA 1/16W	R362	401 105 1105	MT-GLAZE 12K JA 1/16W
R268	401 105 5806	MT-GLAZE 56 JA 1/16W	R364	401 105 0504	MT-GLAZE 1K JA 1/16W
R269	401 105 5202	MT-GLAZE 470 JA 1/16W	R365	401 105 8005	MT-GLAZE 1M JA 1/16W
R270	401 105 5202	MT-GLAZE 470 JA 1/16W	R366	401 105 0603	MT-GLAZE 10K JA 1/16W
R271	401 105 5202	MT-GLAZE 470 JA 1/16W	R368	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R272	401 105 1600	MT-GLAZE 15K JA 1/16W	R370	401 105 2904	MT-GLAZE 22K JA 1/16W
R273	401 105 5301	MT-GLAZE 4.7K JA 1/16W	R371	401 105 1709	MT-GLAZE 150K JA 1/16W
R274	401 105 2904	MT-GLAZE 22K JA 1/16W	R372	401 105 3000	MT-GLAZE 220K JA 1/16W
R275	401 105 2904	MT-GLAZE 22K JA 1/16W	R374	401 105 0603	MT-GLAZE 10K JA 1/16W
R276	401 105 1105	MT-GLAZE 12K JA 1/16W	R382	401 105 0702	MT-GLAZE 100K JA 1/16W
R277	401 105 7404	MT-GLAZE 8.2K JA 1/16W	R383	401 105 8005	MT-GLAZE 1M JA 1/16W
R278	401 105 2805	MT-GLAZE 2.2K JA 1/16W	R384	401 105 0702	MT-GLAZE 100K JA 1/16W
R279	401 105 0405	MT-GLAZE 100 JA 1/16W	R385	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R280	401 105 0702	MT-GLAZE 100K JA 1/16W	R386	401 105 2904	MT-GLAZE 22K JA 1/16W
R283	401 105 2805	MT-GLAZE 2.2K JA 1/16W	R387	401 105 0603	MT-GLAZE 10K JA 1/16W
R284	401 105 1600	MT-GLAZE 15K JA 1/16W	R388	401 105 0504	MT-GLAZE 1K JA 1/16W
R292	401 024 9602	CARBON 12K GA 1/6W	R390	401 105 0702	MT-GLAZE 100K JA 1/16W
R293	401 087 5900	CARBON 68K GA 1/6W	R391	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R301	401 105 0405	MT-GLAZE 100 JA 1/16W	R392	401 105 4502	MT-GLAZE 390 JA 1/16W
R302	401 105 0504	MT-GLAZE 1K JA 1/16W	R393	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R303	401 105 1907	MT-GLAZE 180 JA 1/16W	R394	401 105 8203	MT-GLAZE 68K JA 1/16W
R304	401 105 0504	MT-GLAZE 1K JA 1/16W	R395	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R305	401 105 7206	MT-GLAZE 82 JA 1/16W	R396	401 105 1600	MT-GLAZE 15K JA 1/16W
R306	401 105 2805	MT-GLAZE 2.2K JA 1/16W	R397	401 105 2904	MT-GLAZE 22K JA 1/16W
R307	401 105 6506	MT-GLAZE 680 JA 1/16W	R398	401 105 1600	MT-GLAZE 15K JA 1/16W
R308	401 105 5202	MT-GLAZE 470 JA 1/16W	R399	401 105 5400	MT-GLAZE 47K JA 1/16W
R309	401 105 5400	MT-GLAZE 47K JA 1/16W	⚠ R672	401 057 8009	OXIDE-MT 1 JA 1W
R310	401 105 6506	MT-GLAZE 680 JA 1/16W	⚠ R673	401 067 2509	OXIDE-MT 3.3 JA 2W
R311	401 105 1600	MT-GLAZE 15K JA 1/16W	R676	401 105 5806	MT-GLAZE 56 JA 1/16W
R312	401 105 6506	MT-GLAZE 680 JA 1/16W	⚠ R678	401 062 3907	OXIDE-MT 5.6 JA 1W
R313	401 105 0504	MT-GLAZE 1K JA 1/16W	R801	401 105 0603	MT-GLAZE 10K JA 1/16W
R314	401 105 0504	MT-GLAZE 1K JA 1/16W	R802	401 105 0603	MT-GLAZE 10K JA 1/16W
R315	401 105 5806	MT-GLAZE 56 JA 1/16W	R803	401 105 0603	MT-GLAZE 10K JA 1/16W
R316	401 105 0504	MT-GLAZE 1K JA 1/16W	R804	401 105 0603	MT-GLAZE 10K JA 1/16W
R317	401 105 2706	MT-GLAZE 220 JA 1/16W	R805	401 105 0603	MT-GLAZE 10K JA 1/16W
R318	401 105 6506	MT-GLAZE 680 JA 1/16W	R806	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R319	401 105 5806	MT-GLAZE 56 JA 1/16W	R807	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R320	401 105 3406	MT-GLAZE 27K JA 1/16W	R808	401 105 0603	MT-GLAZE 10K JA 1/16W
R321	401 105 2904	MT-GLAZE 22K JA 1/16W	R809	401 105 0603	MT-GLAZE 10K JA 1/16W
R322	401 105 5806	MT-GLAZE 56 JA 1/16W	R812	401 105 2904	MT-GLAZE 22K JA 1/16W

Ref. No.	Part No.	Description
R813	401 105 0405	MT-GLAZE 100 JA 1/16W
R814	401 105 0603	MT-GLAZE 10K JA 1/16W
R816	401 105 0603	MT-GLAZE 10K JA 1/16W
R817	401 105 0603	MT-GLAZE 10K JA 1/16W
R818	401 105 0405	MT-GLAZE 100 JA 1/16W
R819	401 105 0405	MT-GLAZE 100 JA 1/16W
R820	401 105 0405	MT-GLAZE 100 JA 1/16W
R821	401 105 0405	MT-GLAZE 100 JA 1/16W
R822	401 105 0603	MT-GLAZE 10K JA 1/16W
R824	401 105 0603	MT-GLAZE 10K JA 1/16W
R825	401 105 0702	MT-GLAZE 100K JA 1/16W
R826	401 105 0405	MT-GLAZE 100 JA 1/16W
R827	401 105 0405	MT-GLAZE 100 JA 1/16W
R828	401 105 0504	MT-GLAZE 1K JA 1/16W
R829	401 105 0603	MT-GLAZE 10K JA 1/16W
R830	401 105 0603	MT-GLAZE 10K JA 1/16W
R832	401 105 0504	MT-GLAZE 1K JA 1/16W
R834	401 105 0405	MT-GLAZE 100 JA 1/16W
R835	401 105 1105	MT-GLAZE 12K JA 1/16W
R836	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R837	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R838	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R839	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R840	401 105 4502	MT-GLAZE 390 JA 1/16W
R841	401 105 3208	MT-GLAZE 270 JA 1/16W
R842	401 105 1600	MT-GLAZE 15K JA 1/16W
R843	401 105 0504	MT-GLAZE 1K JA 1/16W
R844	401 105 0603	MT-GLAZE 10K JA 1/16W
R845	401 105 0405	MT-GLAZE 100 JA 1/16W
R846	401 105 4502	MT-GLAZE 390 JA 1/16W
R847	401 105 1105	MT-GLAZE 12K JA 1/16W
R848	401 105 0603	MT-GLAZE 10K JA 1/16W
R849	401 105 0603	MT-GLAZE 10K JA 1/16W
R851	401 105 0702	MT-GLAZE 100K JA 1/16W
R852	401 105 0702	MT-GLAZE 100K JA 1/16W
R853	401 105 1600	MT-GLAZE 15K JA 1/16W
R854	401 105 1600	MT-GLAZE 15K JA 1/16W
R855	401 105 0603	MT-GLAZE 10K JA 1/16W
R856	401 105 0702	MT-GLAZE 100K JA 1/16W
R857	401 105 0702	MT-GLAZE 100K JA 1/16W
R861	401 105 1600	MT-GLAZE 15K JA 1/16W
R862	401 105 1600	MT-GLAZE 15K JA 1/16W
R866	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R868	401 105 0603	MT-GLAZE 10K JA 1/16W
R869	401 105 0603	MT-GLAZE 10K JA 1/16W
R871	401 105 0603	MT-GLAZE 10K JA 1/16W
R872	401 105 0603	MT-GLAZE 10K JA 1/16W
R873	401 105 0603	MT-GLAZE 10K JA 1/16W
R874	401 105 0405	MT-GLAZE 100 JA 1/16W
R876	401 105 2706	MT-GLAZE 220 JA 1/16W
R877	401 105 2706	MT-GLAZE 220 JA 1/16W
R878	401 105 0603	MT-GLAZE 10K JA 1/16W
R879	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R880	401 105 0405	MT-GLAZE 100 JA 1/16W
R881	401 105 0603	MT-GLAZE 10K JA 1/16W
R882	401 105 0603	MT-GLAZE 10K JA 1/16W
R883	401 105 0603	MT-GLAZE 10K JA 1/16W
R884	401 105 0603	MT-GLAZE 10K JA 1/16W
R886	401 105 2706	MT-GLAZE 220 JA 1/16W
R887	401 105 2706	MT-GLAZE 220 JA 1/16W
R888	401 105 0603	MT-GLAZE 10K JA 1/16W
R888TM	401 027 2600	CARBON 5.6K JA 1/6W
R891	401 105 0603	MT-GLAZE 10K JA 1/16W
R892	401 105 2706	MT-GLAZE 220 JA 1/16W
R893	401 105 2706	MT-GLAZE 220 JA 1/16W
R894	401 105 0405	MT-GLAZE 100 JA 1/16W
R898	401 105 0603	MT-GLAZE 10K JA 1/16W

Ref. No.	Part No.	Description
VARIABLE RESISTOR		
VR181	645 002 3521	VR,SEMI,470 S
TRANSFORMER		
T132	645 032 8626	TRANS,OSC,77.8MHZ
COIL		
L131	645 008 2597	INDUCTOR,6.8U J
L132	645 008 2252	INDUCTOR,22U J
L133	645 008 2382	INDUCTOR,33U J
L134	645 008 2399	INDUCTOR,33U K
L135	645 008 2276	INDUCTOR,22U K
L201	645 008 2399	INDUCTOR,33U K
L231	645 008 2399	INDUCTOR,33U K
L232	645 008 2399	INDUCTOR,33U K
L233	645 008 1934	INDUCTOR,1U K
L301	645 008 2368	INDUCTOR,3.3U K
L302	645 021 6909	DELAY LINE
L303	645 008 2023	INDUCTOR,100U K
L801	645 008 2399	INDUCTOR,33U K
L802	645 008 2399	INDUCTOR,33U K
L803	645 008 2399	INDUCTOR,33U K
L804	645 008 2399	INDUCTOR,33U K
DIODE		
D001	407 149 0807	DIODE 1SS355-TE-17
D002	407 149 0807	DIODE 1SS355-TE-17
D004	407 149 0807	DIODE 1SS355-TE-17
D007	407 149 0807	DIODE 1SS355-TE-17
D101	407 149 0807	DIODE 1SS355-TE-17
D1182	407 179 4608	ZENER DIODE UDZ5.6B-TE-17
D131	407 166 1108	DIODE 1SS356-TW11
D132	407 166 1108	DIODE 1SS356-TW11
D1803	407 149 0807	DIODE 1SS355-TE-17
D1804	407 179 0501	ZENER DIODE UDZ6.2B-TE-17
D1806	407 149 0807	DIODE 1SS355-TE-17
D1861	407 149 0807	DIODE 1SS355-TE-17
D1862	407 149 0807	DIODE 1SS355-TE-17
D1863	407 149 0807	DIODE 1SS355-TE-17
D1864	407 149 0807	DIODE 1SS355-TE-17
D1865	407 149 0807	DIODE 1SS355-TE-17
D1866	407 149 0807	DIODE 1SS355-TE-17
D193	407 187 8209	ZENER DIODE UDZ12B-TE-17
D194	407 187 8209	ZENER DIODE UDZ12B-TE-17
D195	407 187 8209	ZENER DIODE UDZ12B-TE-17
D233	407 108 5300	DIODE SB07-03N
D237	407 149 0807	DIODE 1SS355-TE-17
D238	407 149 0807	DIODE 1SS355-TE-17
D239	407 149 0807	DIODE 1SS355-TE-17
D240	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
D241	407 149 0807	DIODE 1SS355-TE-17
D244	407 187 7806	ZENER DIODE UDZ6.8B-TE-17
D251	407 149 0807	DIODE 1SS355-TE-17
D253	407 187 8209	ZENER DIODE UDZ12B-TE-17
D254	407 187 8209	ZENER DIODE UDZ12B-TE-17
D255	407 187 8209	ZENER DIODE UDZ12B-TE-17
D256	407 187 8209	ZENER DIODE UDZ12B-TE-17
D257	407 187 8209	ZENER DIODE UDZ12B-TE-17
D292	407 052 3506	ZENER DIODE HZ35
D293	407 012 4406	DIODE 1SS133
D294	407 012 4406	DIODE 1SS133
D351	407 149 0807	DIODE 1SS355-TE-17
D352	407 149 0807	DIODE 1SS355-TE-17
D353	407 149 0807	DIODE 1SS355-TE-17
D354	407 149 0807	DIODE 1SS355-TE-17
D672	407 149 0807	DIODE 1SS355-TE-17
D677	407 149 0807	DIODE 1SS355-TE-17
D679	407 149 0807	DIODE 1SS355-TE-17
D801	407 187 8209	ZENER DIODE UDZ12B-TE-17

Ref. No.	Part No.	Description
D802	407 149 0807	DIODE 1SS355-TE-17
D803	407 149 0807	DIODE 1SS355-TE-17
D811	408 008 2406	DIODE 1N4148
	407 013 4306	DIODE 1S2076A
	407 013 6508	DIODE 1S2471
D815	407 187 8209	ZENER DIODE UDZ12B-TE-17
D816	407 187 8209	ZENER DIODE UDZ12B-TE-17
D817	407 187 8209	ZENER DIODE UDZ12B-TE-17
D818	407 179 1003	ZENER DIODE UDZ15B-TE17
D819	407 187 8209	ZENER DIODE UDZ12B-TE-17
D821	407 179 4608	ZENER DIODE UDZ5.6B-TE-17
D822	407 179 4608	ZENER DIODE UDZ5.6B-TE-17
D823	407 187 8209	ZENER DIODE UDZ12B-TE-17
D824	407 187 8209	ZENER DIODE UDZ12B-TE-17
D825	407 187 8209	ZENER DIODE UDZ12B-TE-17
D826	407 187 8209	ZENER DIODE UDZ12B-TE-17
D827	407 187 8209	ZENER DIODE UDZ12B-TE-17
D828	407 149 0807	DIODE 1SS355-TE-17
MISCELLANEOUS		
A101	645 032 8602	TUNER,U/V
IC001A	610 263 0930	SOUND HEAT SINK S5MF
IC001C	411 047 0104	SCR PAN+SW+W 3X8
IC001D	411 047 0104	SCR PAN+SW+W 3X8
IC101A	610 278 7245	SHIELD CASE F7HA-A
IC101A1	610 134 1721	FIXER HOOK,10.5X10(PA)
IC101B	610 278 7252	SHIELD CASE F7HA-B
IC671A	610 278 3131	HEAT SINK-F7HA-A
IC671C	411 023 4003	SCR S-TPG PAN 3X10
IC671E	610 014 5818	WASHER
IC672A	610 278 3131	HEAT SINK-F7HA-A
IC672C	411 023 4003	SCR S-TPG PAN 3X10
IC672E	610 014 5818	WASHER
IC673A	610 279 4571	HEAT SINK-S6FA-A
IC673C	411 046 8507	SCR PAN+SW+W 3X10
IC673E	610 014 5818	WASHER
IC674A	610 278 3131	HEAT SINK-F7HA-A
IC674C	411 023 4003	SCR S-TPG PAN 3X10
IC674E	610 014 5818	WASHER
IC801B	610 253 4078	DUMMY CODE
IC801C	610 282 5725	IC LABEL2 F7YL ROM VER1.0
TPAGC	645 008 4058	TERMINAL,PLUG
TPVIDEO	645 008 4058	TERMINAL,PLUG
TP2	645 008 4058	TERMINAL,PLUG
TP4	645 008 4058	TERMINAL,PLUG
TP6	645 008 4058	TERMINAL,PLUG
KIICP1	645 008 4058	TERMINAL,PLUG
KIICP2	645 008 4058	TERMINAL,PLUG
KIICP3	645 008 4058	TERMINAL,PLUG
KIICP4	645 008 4058	TERMINAL,PLUG
KIICP5	645 008 4058	TERMINAL,PLUG
K2B	645 008 5543	SOCKET,10P
K2C	645 008 5543	SOCKET,10P
K2D	645 005 8622	SOCKET,8P
K2E	645 008 5543	SOCKET,10P
K2F	645 008 5529	SOCKET,6P
K3D	645 004 2959	PLUG,9P
K8A	645 032 1924	SOCKET,PWB-PWB 20P
K8B	645 029 6031	SOCKET,PWB-PWB 25P
K8C	645 005 0060	PLUG,PWB-PWB 15P
K8D	645 005 0060	PLUG,PWB-PWB 15P
K8F	645 004 2980	PLUG,12P
K8G2	645 008 4058	TERMINAL,PLUG
K8G3	645 008 4058	TERMINAL,PLUG
K8H	645 032 1924	SOCKET,PWB-PWB 20P
K8M	645 023 2817	PLUG,PWB-PWB 12P
K8P	645 005 0060	PLUG,PWB-PWB 15P
K8Q	645 005 0060	PLUG,PWB-PWB 15P
K8R	645 023 2817	PLUG,PWB-PWB 12P
K8V	645 004 2928	PLUG,6P
X131	421 008 0906	SAW F TSB6315T
X132	421 002 2609	SAW F TSF5315
	421 003 3902	SAW F TSF5315U
X133	645 028 1143	TRAP,CERAMIC 5.5/6.0/6.5M
X201	645 033 2388	OSC,CRYSTAL 4.433619MHZ
X204	610 240 5408	CRYSTAL OSCILLATOR
X231	645 000 5299	OSC,CERAMIC 12.0MHZ
X801	610 282 0201	CRYSTAL OSCILLATOR

ASSY,PWB,POWER DEF-F7YL 1AA0B10E475E0

TRANSISTOR

Q401	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2309	TR 2SC1815-Y
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
Q402	405 101 6003	TR 2SC4645-D
	405 101 6102	TR 2SC4645-E
Q403	405 014 2406	TR 2SC2383-O(SAN)
Q411	406 016 1503	TR 2SC5570(LBSAN)
Q421	406 012 1408	TR 2SK2010-CTV-YA14
Q471	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2309	TR 2SC1815-Y
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
Q472	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2309	TR 2SC1815-Y
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
Q473	405 136 2506	TR 2SK2381
Q475	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2309	TR 2SC1815-Y
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
Q551	405 018 0507	TR 2SC3332-R
	405 018 0606	TR 2SC3332-S
Q552	405 003 6002	TR 2SA1319-S
Q553	405 001 5908	TR 2SA1011-D-RA
	405 001 6103	TR 2SA1011-E-RA
Q571	405 016 9403	TR 2SC3068
Q572	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2309	TR 2SC1815-Y
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
Q611	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2309	TR 2SC1815-Y
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
Q631	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R

Ref. No.	Part No.	Description
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2309	TR 2SC1815-Y
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
Q632	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2309	TR 2SC1815-Y
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
INTEGRATED CIRCUIT		
IC471	409 132 6308	IC MB3759P-G
IC501	409 403 7102	IC LA7846NZ
IC611	410 326 5007	IC STR-F6656 LF1351
IC631	409 169 5800	IC SE140NL
CAPACITOR		
C400	403 049 4204	ELECT 10U M 50V
C401	403 270 2901	MT-POLYEST 0.1U K 63V
	403 237 8007	MT-COMPO 0.1U J 50V
C402	403 178 8807	ELECT 33U M 100V
C403	403 322 3108	CERAMIC 390P K 1K
	403 262 4005	CERAMIC 390P K 1K
C404	403 222 1907	CERAMIC 2200P K 1K
	403 263 6305	CERAMIC 2200P K 1K
	403 232 0204	CERAMIC 2200P K 1K
C405	403 334 4209	ELECT 2200U M 16V
⚠ C411	404 076 7909	MT-POLYPRO 3300P H 1.5K
	403 344 9409	MT-POLYPRO 3300P H 1.5K
⚠ C412	404 079 6909	MT-POLYPRO 3600P H 1.5K
⚠ C413	404 079 6800	MT-POLYPRO 2700P H 1.5K
⚠ C414	404 079 6909	MT-POLYPRO 3600P H 1.5K
	403 344 9508	MT-POLYPRO 3600P H 1.5K
C415	403 324 2604	CERAMIC 470P K 3K
	403 264 4300	CERAMIC 470P K 3K
	403 232 3205	CERAMIC 470P K 3K
C416	403 064 0007	POLYESTER 0.01U K 100V
	403 276 9607	POLYESTER 0.01U K 100V
⚠ C421	403 083 7110	POLYPRO 0.068U J 400V
⚠ C422	403 348 9217	MT-POLYPRO 0.1U J 400V
⚠ C423	403 079 0910	MT-POLYPRO 0.15U J 400V
⚠ C424	403 079 0900	MT-POLYPRO 0.15U J 400V
C441	403 302 1902	MT-POLYEST 3.9U K 250V
C442	403 270 3809	MT-POLYEST 0.047U K 63V
	403 225 2703	MT-COMPO 0.047U J 50V
C443	403 233 1507	ELECT 4.7U M 50V
C461	403 083 9817	POLYPRO 0.018U J 630V
C462	403 083 9817	POLYPRO 0.018U J 630V
C463	403 083 8117	POLYPRO 0.01U J 630V
C464	403 188 0808	MT-POLYEST 2.2U J 100V
C465	403 188 0808	MT-POLYEST 2.2U J 100V
C466	403 188 0808	MT-POLYEST 2.2U J 100V
C469	403 074 5702	CERAMIC 560P K 50V
C470	403 049 4204	ELECT 10U M 50V
C471	403 069 8305	CERAMIC 0.01U Z 50V
C472	403 056 8103	POLYESTER 1000P K 50V
	403 179 3900	POLYESTER 1000P K 50V
C473	403 069 8305	CERAMIC 0.01U Z 50V
C474	403 041 8804	ELECT 10U M 16V
C475	403 068 9006	CERAMIC 100P K 50V
C476	403 222 1303	CERAMIC 1000P K 1K
	403 271 9602	CERAMIC 1000P K 1K
	403 262 1806	CERAMIC 1000P K 1K
C478	403 074 8901	CERAMIC 680P K 50V
C481	403 178 8609	ELECT 100U M 100V
C482	403 260 0702	ELECT 33U M 250V
C483	403 049 4204	ELECT 10U M 50V
C490	403 185 8807	MT-POLYEST 1U K 250V
C504	403 148 0404	ELECT 1000U M 25V
C505	403 148 0404	ELECT 1000U M 25V
C508	403 161 8302	MT-POLYEST 0.47U K 100V
C509	403 060 0704	POLYESTER 2700P K 50V
	403 179 2200	POLYESTER 2700P K 50V
C510	403 036 6600	CERAMIC 8P D 500V
C511	403 274 6004	POLYESTER 0.033U K 100V
	403 288 9701	POLYESTER 0.033U K 100V
C514	403 270 2901	MT-POLYEST 0.1U K 63V
	403 237 8007	MT-COMPO 0.1U J 50V
C571	403 069 8305	CERAMIC 0.01U Z 50V
C572	403 233 0302	ELECT 100U M 16V
C573	403 154 2102	NP-ELECT 1U M 50V
C574	403 248 1608	ELECT 47U M 16V
C575	403 248 1905	ELECT 10U M 16V
C576	403 069 8305	CERAMIC 0.01U Z 50V
C577	403 069 8305	CERAMIC 0.01U Z 50V
C578	403 270 2901	MT-POLYEST 0.1U K 63V
	403 237 8007	MT-COMPO 0.1U J 50V
C601	403 312 8205	CERAMIC 1000P K 1K
	403 076 7100	CERAMIC 1000P M 1K
C602	403 312 8205	CERAMIC 1000P K 1K
	403 076 7100	CERAMIC 1000P M 1K
C603	403 312 8205	CERAMIC 1000P K 1K
	403 076 7100	CERAMIC 1000P M 1K
C604	403 312 8205	CERAMIC 1000P K 1K
	403 076 7100	CERAMIC 1000P M 1K
C605	404 061 3602	ELECT 470U M 400V
C606	403 180 4101	MT-POLYEST 0.1U K 630V
C607	403 247 6604	CERAMIC 680P K 2K
	403 275 8205	CERAMIC 680P K 2K
	403 232 2109	CERAMIC 680P K 2K
C611	403 245 4404	CERAMIC 470P K 2K
	403 275 8106	CERAMIC 470P K 2K
	403 232 1805	CERAMIC 470P K 2K
C612	403 148 1708	ELECT 100U M 35V
C613	403 138 9905	POLYESTER 470P J 50V
	403 276 9102	POLYESTER 470P J 50V
C614	403 056 7304	POLYESTER 1000P J 50V
	403 178 9200	POLYESTER 1000P J 50V
⚠ C621	404 060 6505	CERAMIC 2200P M 400V
	404 071 4200	CERAMIC 2200P M 400V
	404 060 6604	CERAMIC 2200P M 400V
C631	403 222 1303	CERAMIC 1000P K 1K
	403 271 9602	CERAMIC 1000P K 1K
	403 262 1806	CERAMIC 1000P K 1K
C632	403 148 0404	ELECT 1000U M 25V
C633	403 247 5003	CERAMIC 470P K 1K
	403 269 1809	CERAMIC 470P K 1K
	403 232 0501	CERAMIC 470P K 1K
C634	404 054 8508	ELECT 270U M 160V
C635	403 222 1303	CERAMIC 1000P K 1K
	403 271 9602	CERAMIC 1000P K 1K
	403 262 1806	CERAMIC 1000P K 1K
C636	403 155 1203	ELECT 3300U M 25V
C637	403 222 1907	CERAMIC 2200P K 1K
	403 263 6305	CERAMIC 2200P K 1K
	403 232 0204	CERAMIC 2200P K 1K
C638	403 155 1203	ELECT 3300U M 25V
C639	403 222 1907	CERAMIC 2200P K 1K
	403 263 6305	CERAMIC 2200P K 1K
	403 232 0204	CERAMIC 2200P K 1K
C640	403 154 8500	ELECT 3300U M 35V
C643	404 074 9103	ELECT 220U M 160V
C644	403 148 0107	ELECT 1000U M 16V
C645	403 148 0107	ELECT 1000U M 16V

Ref. No.	Part No.	Description
RESISTOR		
R402	401 016 2604	CARBON 220 JA 1/4W
R403	401 026 6609	CARBON 390 JA 1/6W
R405	401 026 6609	CARBON 390 JA 1/6W
⚠ R406	401 068 4700	OXIDE-MT 4.7K JA 2W
⚠ R407A	402 082 3809	WIRE WOUND 560 KA 5W
⚠ R408A	402 079 6004	WIRE WOUND 680 KA 5W
⚠ R409	401 062 3907	OXIDE-MT 5.6 JA 1W
R411	401 012 5807	CARBON 1K JB 1/4W
R412	401 027 5908	CARBON 68K JA 1/6W
R413	401 024 7400	CARBON 10K JA 1/6W
R421	401 024 6700	CARBON 100 JA 1/6W
R422	401 024 7400	CARBON 10K JA 1/6W
R423	401 007 2309	CARBON 100K JA 1/2W
⚠ R424	401 058 3706	OXIDE-MT 1K JA 1W
⚠ R425	401 058 3706	OXIDE-MT 1K JA 1W
⚠ R431	401 180 8402	OXIDE-MT 0.47 JA 2W
⚠ R441	402 072 1204	WIRE WOUND 1.8 KA 7W
	402 075 8309	WIRE WOUND 1.8 KA 7W
R442	401 024 7004	CARBON 1K JA 1/6W
R443	401 024 7400	CARBON 10K JA 1/6W
R444	401 017 2801	CARBON 27K JA 1/4W
R445	401 018 4903	CARBON 33K JA 1/4W
R446	401 016 0105	CARBON 20K JA 1/4W
R461	401 025 1902	CARBON 15K JA 1/6W
R462	401 024 7400	CARBON 10K JA 1/6W
R463	401 027 2600	CARBON 5.6K JA 1/6W
R464	401 025 1605	CARBON 1.5K JA 1/6W
R466	401 025 1902	CARBON 15K JA 1/6W
R467	401 027 5502	CARBON 6.8K JA 1/6W
R468	401 025 7805	CARBON 2.2K JA 1/6W
R469	401 027 5502	CARBON 6.8K JA 1/6W
R470	401 027 3003	CARBON 56K JA 1/6W
R471	401 024 7004	CARBON 1K JA 1/6W
R472	401 026 3905	CARBON 330 JA 1/6W
⚠ R473	401 064 5701	OXIDE-MT 1.8 JA 2W
⚠ R474	401 064 5701	OXIDE-MT 1.8 JA 2W
R478	401 027 2600	CARBON 5.6K JA 1/6W
R479	401 025 1308	CARBON 150 JA 1/6W
⚠ R481	401 067 8204	OXIDE-MT 39 JA 2W
⚠ R482	401 057 8009	OXIDE-MT 1 JA 1W
R483	401 027 2600	CARBON 5K6 JA 1/6W
R485	401 009 5803	CARBON 330 JA 1/2W
R486	401 026 9907	CARBON 4.7K JA 1/6W
R487	401 017 3808	CARBON 270K JA 1/4W
R488	401 017 2801	CARBON 27K JA 1/4W
⚠ R503	402 058 9705	FUSIBLE RES 6.8 J- 2W
⚠ R504	402 061 0201	FUSIBLE RES 1.5 J- 1/2W
⚠ R505	402 059 4402	FUSIBLE RES 150 J- 1/2W
⚠ R506	401 063 1001	OXIDE-MT 680 JA 1W
⚠ R508	401 064 5305	OXIDE-MT 1.5 JA 2W
R509	401 053 1202	MT-FILM 2.2K FA 1/6W
R511	401 011 9004	CARBON 1 JB 1/4W
R513	401 053 1202	MT-FILM 2.2K FA 1/6W
R551	401 024 7004	CARBON 1K JA 1/6W
R553	401 025 8208	CARBON 22K JA 1/6W
R554	401 025 4606	CARBON 18K JA 1/6W
R555	401 027 0309	CARBON 47K JA 1/6W
R556	401 025 8703	CARBON 220K JA 1/6W
⚠ R557	401 064 3806	OXIDE-MT 1 JA 2W
R571	401 024 7400	CARBON 10K JA 1/6W
R572	401 024 7400	CARBON 10K JA 1/6W
R573	401 027 5502	CARBON 6.8K JA 1/6W
R574	401 024 9701	CARBON 12K JA 1/6W
R575	401 027 2501	CARBON 5.6K GA 1/6W
R576	401 026 4605	CARBON 33K JA 1/6W
R577	401 025 1902	CARBON 15K JA 1/6W
R578	401 024 7400	CARBON 10K JA 1/6W
R579	401 026 4605	CARBON 33K JA 1/6W

Ref. No.	Part No.	Description
R601	401 007 2903	CARBON 1M JA 1/2W
R602	401 007 2903	CARBON 1M JA 1/2W
⚠ R603	401 069 4501	OXIDE-MT 68K JA 2W
⚠ R604	401 069 4501	OXIDE-MT 68K JA 2W
R606	401 008 8607	CARBON 220K JA 1/2W
R607	401 008 8607	CARBON 220K JA 1/2W
R611	401 022 2001	CARBON 680 JB 1/4W
⚠ R612	401 238 3304	OXIDE-MT 0.18 JA 2W
⚠ R613	401 238 3304	OXIDE-MT 0.18 JA 2W
R614	401 019 9600	CARBON 47 JA 1/4W
R615	401 026 1000	CARBON 2.7K JA 1/6W
R616	401 026 1000	CARBON 2.7K JA 1/6W
R617	401 015 2803	CARBON 1.8K JB 1/4W
R618	401 018 3906	CARBON 3.3K JB 1/4W
⚠ R621	402 000 8305	SOLID 5.6M KA 1/2W
⚠ R622	402 000 8305	SOLID 5.6M KA 1/2W
R631	401 024 7400	CARBON 10K JA 1/6W
R632	401 024 9701	CARBON 12K JA 1/6W
R633	401 026 9907	CARBON 4.7K JA 1/6W
R634	401 024 7400	CARBON 10K JA 1/6W
R636	401 024 7400	CARBON 10K JA 1/6W
R638	401 023 3403	CARBON 82K GA 1/4W
R639	401 016 8309	CARBON 24K GA 1/4W
R640	401 024 7400	CARBON 10K JA 1/6W
⚠ R641	402 082 3700	WIRE WOUND 1.5 KA 5W
	402 075 1904	WIRE WOUND 1.5 KA 5W
R647	401 011 2708	CARBON 68K JA 1/2W
⚠ R651	401 065 4604	OXIDE-MT 12K JA 2W
TRANSFORMER		
T401A	645 036 1135	TRANS,DRIVE
⚠ T402	645 033 2913	TRANS,FLYBACK
⚠ T403	645 037 5880	TRANS,CHOKE
⚠ T611	645 032 6226	TRANS,POWER,PULSE
COIL		
L421	645 036 1142	COIL,LINEARITY
	645 037 9055	COIL,LINEARITY
L422	645 036 1159	COIL,LINEARITY
	645 037 9062	COIL,LINEARITY
L461	610 000 0124	COIL
L462	610 000 0124	COIL
L463	645 036 3979	INDUCTOR,2000U
L471	645 001 4758	INDUCTOR,100U K
L501	645 007 8019	INDUCTOR,150U K
	610 032 1243	INDUCTOR,150U K
	645 005 5287	INDUCTOR,150U K
L502	610 032 4381	FILTER COIL
	610 032 4404	FILTER COIL
	645 008 5642	INDUCTOR,3.3U K
L511	645 008 5635	INDUCTOR,12U K
L571	645 001 5649	INDUCTOR,33U K
L601	401 025 7409	CARBON 220 JA 1/6W
L604	645 005 0725	CORE,PIPE
L641	645 007 8156	INDUCTOR,82U K
	610 032 1083	INDUCTOR,82U K
	645 005 5423	INDUCTOR,82U K
L642	645 007 8002	INDUCTOR,15U K
	610 032 0796	INDUCTOR,15U K
	645 005 5270	INDUCTOR,15U K
L643	645 007 8002	INDUCTOR,15U K
	610 032 0796	INDUCTOR,15U K
	645 005 5270	INDUCTOR,15U K
DIODE		
D403	408 008 2406	DIODE 1N4148
	407 013 4306	DIODE 1S2076A
	407 013 6508	DIODE 1S2471
D411A	407 142 5908	DIODE FMP-G3FS

Ref. No.	Part No.	Description
D411A-1	610 269 6752	HEAT SINK (HKG) F3TV
D411A-3	411 045 2209	SCR PAN+SW 3X10
D411A-4	411 004 4404	NUT HEX 3
D412	407 142 5908	DIODE FMP-G3FS
D412-1	610 269 6752	HEAT SINK (HKG) F3TV
D412-3	411 045 2209	SCR PAN+SW 3X10
D412-4	411 004 4404	NUT HEX 3
D441	407 011 4407	DIODE TVR1G
D461	407 120 3704	DIODE FMU-16S LF-F
D461-1	610 269 6752	HEAT SINK (HKG) F3TV
D461-3	411 045 2209	SCR PAN+SW 3X10
D461-4	411 004 4404	NUT HEX 3
D461-5	610 014 5818	WASHER
D462	407 106 2806	DIODE RU3YX
D470	408 008 2406	DIODE 1N4148
	407 013 4306	DIODE 1S2076A
	407 013 6508	DIODE 1S2471
D471	407 005 4505	DIODE DS442X
	408 008 2406	DIODE 1N4148
	407 012 4406	DIODE 1SS133
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D472	408 008 2406	DIODE 1N4148
	407 013 4306	DIODE 1S2076A
	407 013 6508	DIODE 1S2471
D473	407 005 4505	DIODE DS442X
	408 008 2406	DIODE 1N4148
	407 012 4406	DIODE 1SS133
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D474	407 063 8606	ZENER DIODE MTZJ5.1A
	407 099 5204	ZENER DIODE MTZJ5.1B
	407 063 8705	ZENER DIODE MTZJ5.1C
D481	407 005 9302	DIODE ERA21-02
	407 091 7008	DIODE ERA22-02
	407 007 7306	DIODE EU01Z
D482	407 005 9609	DIODE ERA22-04
	407 007 7009	DIODE EU01
D483	408 008 2406	DIODE 1N4148
	407 013 4306	DIODE 1S2076A
	407 013 6508	DIODE 1S2471
D484	407 099 5303	ZENER DIODE MTZJ5.6B
	407 063 8903	ZENER DIODE MTZJ5.6C
D485	407 005 4505	DIODE DS442X
	408 008 2406	DIODE 1N4148
	407 012 4406	DIODE 1SS133
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D486	407 005 4505	DIODE DS442X
	408 008 2406	DIODE 1N4148
	407 012 4406	DIODE 1SS133
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D501	407 005 7308	DIODE EM01Z
	407 005 8602	DIODE ERA15-02
D502	407 118 2207	ZENER DIODE 1Z75
D503	407 100 0204	ZENER DIODE MTZJ36A
	407 100 0303	ZENER DIODE MTZJ36B
	407 100 0402	ZENER DIODE MTZJ36C
D504	407 100 0204	ZENER DIODE MTZJ36A
	407 100 0303	ZENER DIODE MTZJ36B
	407 100 0402	ZENER DIODE MTZJ36C
D505	407 118 2207	ZENER DIODE 1Z75
D506	407 118 2207	ZENER DIODE 1Z75
D507	407 118 2207	ZENER DIODE 1Z75
D508	407 118 2207	ZENER DIODE 1Z75
D511	407 118 2207	ZENER DIODE 1Z75
D512	407 118 2207	ZENER DIODE 1Z75
D513	407 063 8606	ZENER DIODE MTZJ5.1A
	407 099 5204	ZENER DIODE MTZJ5.1B
	407 063 8705	ZENER DIODE MTZJ5.1C
D514	407 063 8606	ZENER DIODE MTZJ5.1A
	407 099 5204	ZENER DIODE MTZJ5.1B
	407 063 8705	ZENER DIODE MTZJ5.1C
D551	407 005 8602	DIODE ERA15-02
D552	407 005 4505	DIODE DS442X
	408 008 2406	DIODE 1N4148
	407 012 4406	DIODE 1SS133
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D553	407 100 0204	ZENER DIODE MTZJ36A
	407 100 0303	ZENER DIODE MTZJ36B
	407 100 0402	ZENER DIODE MTZJ36C
D554	407 100 0204	ZENER DIODE MTZJ36A
	407 100 0303	ZENER DIODE MTZJ36B
	407 100 0402	ZENER DIODE MTZJ36C
D571	407 005 4505	DIODE DS442X
	408 008 2406	DIODE 1N4148
	407 012 4406	DIODE 1SS133
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D572	407 005 4505	DIODE DS442X
	408 008 2406	DIODE 1N4148
	407 012 4406	DIODE 1SS133
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D575	407 099 5709	ZENER DIODE MTZJ6.8C
D601	407 155 8705	DIODE RBV-608 LF-B
D601A	610 267 6266	HEAT SINK POWER S6WF
D601AP1	645 008 4058	TERMINAL,PLUG
D601C	412 008 6807	SCR D-TPG PAN 3X8E
D602	407 146 8103	DIODE EG01C
D611	407 005 4505	DIODE DS442X
	408 008 2406	DIODE 1N4148
	407 012 4406	DIODE 1SS133
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D612	407 007 7603	DIODE EU2
	407 007 7801	DIODE EU2Z
D613	408 008 2406	DIODE 1N4148
	407 013 4306	DIODE 1S2076A
	407 013 6508	DIODE 1S2471
D614	408 008 2406	DIODE 1N4148
	407 013 4306	DIODE 1S2076A
	407 013 6508	DIODE 1S2471
D631	407 106 2806	DIODE RU3YX
D632	407 191 3900	DIODE FML-G16S
D632A	610 278 3131	HEAT SINK-F7HA-A
D632C	411 023 4003	SCR S-TPG PAN 3X10
D632E	610 014 5818	WASHER
D633	407 118 2306	DIODE FML-12S LF-F
	407 154 2704	DIODE YG901C2-LB
D633A	610 278 3131	HEAT SINK-F7HA-A
D633C	411 023 4003	SCR S-TPG PAN 3X10
D633E	610 014 5818	WASHER
D634	407 118 2306	DIODE FML-12S LF-F
	407 154 2704	DIODE YG901C2-LB
D634A	610 278 3131	HEAT SINK-F7HA-A
D634C	411 023 4003	SCR S-TPG PAN 3X10
D634E	610 014 5818	WASHER
⚠ D635	407 166 2303	DIODE ERC91-02L
D637	407 005 4505	DIODE DS442X
	408 008 2406	DIODE 1N4148
	407 012 4406	DIODE 1SS133
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D638	407 099 7505	ZENER DIODE MTZJ18A
	407 099 7604	ZENER DIODE MTZJ18B

Ref. No.	Part No.	Description
	407 054 8301	ZENER DIODE RD18EB1
	407 054 8400	ZENER DIODE RD18EB2
D642	407 099 3309	ZENER DIODE MTZJ13C
D643	407 005 4505	DIODE DS442X
	408 008 2406	DIODE 1N4148
	407 012 4406	DIODE 1SS133
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D646	407 005 4505	DIODE DS442X
	408 008 2406	DIODE 1N4148
	407 012 4406	DIODE 1SS133
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D647	407 052 3506	ZENER DIODE HZ35
D648	407 005 4505	DIODE DS442X
	408 008 2406	DIODE 1N4148
	407 012 4406	DIODE 1SS133
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D649	407 005 4505	DIODE DS442X
	408 008 2406	DIODE 1N4148
	407 012 4406	DIODE 1SS133
	407 013 4207	DIODE 1S2076
	407 013 7109	DIODE 1S2473
D651	407 099 9806	ZENER DIODE MTZJ33A
MISCELLANEOUS		
IC421	407 104 2402	PHOTO COUPLE PC817C
	407 002 6809	PHOTO COUPLE TLP521-1-BL
⚠ Q621	407 173 2907	PHOTO COUPLE PC123F2

ASSY,PWB,CRT-F7HL 1AA0B10E476A0

TRANSISTOR

Q1702	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2309	TR 2SC1815-Y
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
Q1706	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q1707	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q1708	406 000 6804	TR 2SA1015-GR(SAN)
	405 001 7605	TR 2SA1015-Y(SAN)
	405 004 3208	TR 2SA564A-R(CU)
	405 006 1806	TR 2SA933S-R
Q1709	405 108 4903	TR 2SA1837-LB
Q1711	405 108 5009	TR 2SC4793-LB
Q1712	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q701	405 011 8401	TR 2SC1740S-Q
	405 011 8500	TR 2SC1740S-R
	405 011 8609	TR 2SC1740S-S
	405 012 2002	TR 2SC1815-GR
	405 012 2101	TR 2SC1815-O
	405 012 2309	TR 2SC1815-Y
	405 020 7501	TR 2SC945A-PA
	405 020 7709	TR 2SC945A-QA
	405 020 7907	TR 2SC945A-RA
Q711	406 000 6804	TR 2SA1015-GR(SAN)
	405 001 7407	TR 2SA1015-O(SAN)
	405 001 7605	TR 2SA1015-Y(SAN)
	405 004 3109	TR 2SA564A-Q(CU)
	405 004 3208	TR 2SA564A-R(CU)
	405 006 1707	TR 2SA933S-Q
	405 006 1806	TR 2SA933S-R
Q721	406 000 6804	TR 2SA1015-GR(SAN)
	405 001 7407	TR 2SA1015-O(SAN)
	405 001 7605	TR 2SA1015-Y(SAN)
	405 004 3109	TR 2SA564A-Q(CU)
	405 004 3208	TR 2SA564A-R(CU)
	405 006 1707	TR 2SA933S-Q
	405 006 1806	TR 2SA933S-R
Q731	406 000 6804	TR 2SA1015-GR(SAN)
	405 001 7407	TR 2SA1015-O(SAN)
	405 001 7605	TR 2SA1015-Y(SAN)
	405 004 3109	TR 2SA564A-Q(CU)
	405 004 3208	TR 2SA564A-R(CU)
	405 006 1707	TR 2SA933S-Q
	405 006 1806	TR 2SA933S-R

INTEGRATED CIRCUIT

IC711	409 371 6107	IC TDA6111Q/N4
IC721	409 371 6107	IC TDA6111Q/N4
IC731	409 371 6107	IC TDA6111Q/N4

CAPACITOR

C1705	403 042 2405	ELECT	100U	M	16V
C1711	403 057 3107	POLYESTER	0.1U	K	50V
	403 057 3701	POLYESTER	0.1U	K	50V
C1712	403 062 0504	POLYESTER	0.047U	K	50V
	403 062 1006	POLYESTER	0.047U	K	50V
C1713	403 073 2900	CERAMIC	390P	K	50V
C1714	403 068 9006	CERAMIC	100P	K	50V
C1715	403 065 1409	POLYESTER	4700P	K	200V
	403 101 9208	POLYESTER	4700P	K	200V
C1716	403 068 9006	CERAMIC	100P	K	50V
C1717	403 061 8303	POLYESTER	4700P	K	50V
	403 061 8808	POLYESTER	4700P	K	50V
C1718	403 041 2109	ELECT	47U	M	10V
C1719	403 259 9006	ELECT	10U	M	160V
C1721	403 049 0008	ELECT	1U	M	50V
C1722	403 222 0603	ELECT	22U	M	160V
C1723	403 075 8207	CERAMIC	0.01U	P	500V
C1724	403 072 4400	CERAMIC	270P	K	50V
C1726	403 036 4101	CERAMIC	56P	J	500V
C1748	403 069 8305	CERAMIC	0.01U	Z	50V
C1749	403 042 2405	ELECT	100U	M	16V
C702	403 043 9106	ELECT	47U	M	16V
C704	403 041 8804	ELECT	10U	M	16V
C706	403 012 4002	CERAMIC	15P	J	50V
C707	403 012 4002	CERAMIC	15P	J	50V
C708	403 012 4002	CERAMIC	15P	J	50V

Ref. No.	Part No.	Description
C709	403 049 0008	ELECT 1U M 50V
C710	403 023 9607	CERAMIC 39P J 50V
C712	403 161 9200	MT-POLYEST 0.22U K 250V
C714	403 072 2604	CERAMIC 0.022U Z 50V
C719	403 075 7101	CERAMIC 1000P K 500V
C722	403 161 9200	MT-POLYEST 0.22U K 250V
C724	403 072 2604	CERAMIC 0.022U Z 50V
C729	403 075 7101	CERAMIC 1000P K 500V
C732	403 161 9200	MT-POLYEST 0.22U K 250V
C733	403 072 2604	CERAMIC 0.022U Z 50V
C736	403 260 0306	ELECT 2.2U M 250V
C739	403 075 7101	CERAMIC 1000P K 500V
C751	403 077 2708	CERAMIC 1000P P 2K
C752	403 077 2708	CERAMIC 1000P P 2K
C760	403 070 7403	CERAMIC 150P K 50V
RESISTOR		
R1701	401 024 6700	CARBON 100 JA 1/6W
R1707	401 025 1605	CARBON 1.5K JA 1/6W
R1708	401 015 7808	CARBON 2.7 JA 1/4W
R1709	401 015 7808	CARBON 2.7 JA 1/4W
R1711	401 027 2105	CARBON 56 JA 1/6W
R1716	401 024 9305	CARBON 1.2K JA 1/6W
R1720	401 025 4200	CARBON 1.8K JA 1/6W
R1722	401 027 3003	CARBON 56K JA 1/6W
R1723	401 026 7408	CARBON 39K JA 1/6W
R1724	401 026 7408	CARBON 39K JA 1/6W
R1727	401 012 3506	CARBON 10 JB 1/4W
R1728	401 013 4304	CARBON 120 JB 1/4W
R1730	401 024 9305	CARBON 1.2K JA 1/6W
R1732	401 024 9305	CARBON 1.2K JA 1/6W
R1733	401 027 5908	CARBON 68K JA 1/6W
R1734	401 027 5908	CARBON 68K JA 1/6W
R1735	401 024 9305	CARBON 1.2K JA 1/6W
R1736	401 024 9701	CARBON 12K JA 1/6W
R1737	401 007 3702	CARBON 12 JB 1/2W
R1738	401 007 3702	CARBON 12 JB 1/2W
⚠ R1742	401 066 6102	OXIDE-MT 220 JA 2W
⚠ R1743	402 003 0108	FUSIBLE RES 1K J- 2W
R1744	401 024 9305	CARBON 1.2K JA 1/6W
R701	401 024 7004	CARBON 1K JA 1/6W
R702	401 027 5205	CARBON 680 JA 1/6W
R703	401 025 7805	CARBON 2.2K JA 1/6W
R704	401 027 2303	CARBON 560 JA 1/6W
R705	401 025 7409	CARBON 220 JA 1/6W
R706	401 026 0904	CARBON 2.7K GA 1/6W
R707	401 026 6906	CARBON 3.9K GA 1/6W
R708	401 027 8503	CARBON 8.2K GA 1/6W
R709	401 026 9808	CARBON 4.7K GA 1/6W
R710	401 026 9600	CARBON 470 JA 1/6W
R711	401 012 5708	CARBON 1K JA 1/4W
R713	401 027 5205	CARBON 680 JA 1/6W
R717	401 011 5501	CARBON 820 JA 1/2W
R718	401 024 6700	CARBON 100 JA 1/6W
R720	401 026 9600	CARBON 470 JA 1/6W
R721	401 012 5708	CARBON 1K JA 1/4W
R723	401 027 5205	CARBON 680 JA 1/6W
R724	401 012 5708	CARBON 1K JA 1/4W
R725	401 014 4105	CARBON 1.5K JA 1/4W
R726	401 014 4105	CARBON 1.5K JA 1/4W
R727	401 011 5501	CARBON 820 JA 1/2W
R728	401 024 6700	CARBON 100 JA 1/6W
R729	401 012 5708	CARBON 1K JA 1/4W
R730	401 026 9600	CARBON 470 JA 1/6W
R731	401 012 5708	CARBON 1K JA 1/4W
R733	401 027 5205	CARBON 680 JA 1/6W
R735	401 014 4105	CARBON 1.5K JA 1/4W
R737	401 011 5501	CARBON 820 JA 1/2W
R739	401 024 6700	CARBON 100 JA 1/6W

Ref. No.	Part No.	Description
⚠ R740	402 002 4305	FUSIBLE RES 33 J- 1W
R743	401 025 7409	CARBON 220 JA 1/6W
R744	401 025 7409	CARBON 220 JA 1/6W
R745	401 025 7409	CARBON 220 JA 1/6W
R748	401 012 5708	CARBON 1K JA 1/4W
⚠ R751	401 142 9508	OXIDE-MT 0.27 JA 1W
⚠ R753	401 068 5509	OXIDE-MT 47K JA 2W
⚠ R754	401 068 5509	OXIDE-MT 47K JA 2W
⚠ R755	401 068 5509	OXIDE-MT 47K JA 2W
R756	401 010 4802	CARBON 470K JA 1/2W
R757	401 009 7401	CARBON 330K JA 1/2W
R792	401 001 3807	SOLID 220 KA 1/2W
R793	401 001 3807	SOLID 220 KA 1/2W
R794	401 001 3807	SOLID 220 KA 1/2W
COIL		
L1702	610 237 1000	PIPE CORE
L1703	610 031 9998	PIPE CORE
L1704	610 031 9998	PIPE CORE
L1705	610 031 9998	PIPE CORE
L1707	610 237 1000	PIPE CORE
L710	645 008 2863	INDUCTOR,4.7U K
L720	645 008 2863	INDUCTOR,4.7U K
L730	645 008 2863	INDUCTOR,4.7U K
DIODE		
D1705	407 108 5300	DIODE SB07-03N
D1707	407 108 5300	DIODE SB07-03N
D1708	407 012 4406	DIODE 1SS133
D701	407 012 4406	DIODE 1SS133
D702	407 012 4406	DIODE 1SS133
D703	407 012 4406	DIODE 1SS133
D704	401 026 4506	CARBON 33K GA 1/6W
D705	407 099 6904	ZENER DIODE MTZJ15A
	407 099 7000	ZENER DIODE MTZJ15B
D706	407 012 4406	DIODE 1SS133
D707	407 012 4406	DIODE 1SS133
D708	407 012 4406	DIODE 1SS133
D711	407 006 3903	DIODE ERB43-04
	407 011 4407	DIODE TVR1G
D712	407 006 3903	DIODE ERB43-04
	407 011 4407	DIODE TVR1G
D721	407 006 3903	DIODE ERB43-04
	407 011 4407	DIODE TVR1G
D722	407 006 3903	DIODE ERB43-04
	407 011 4407	DIODE TVR1G
D731	407 006 3903	DIODE ERB43-04
	407 011 4407	DIODE TVR1G
D732	407 006 3903	DIODE ERB43-04
	407 011 4407	DIODE TVR1G
D738	407 063 9405	ZENER DIODE MTZJ8.2A
	407 063 9504	ZENER DIODE MTZJ8.2B
	407 099 5907	ZENER DIODE MTZJ8.2C
MISCELLANEOUS		
⚠ K702	610 249 4136	CRT SOCKET
	610 248 4717	CRT SOCKET
	610 252 1900	CRT SOCKET
XL1701	610 237 1000	PIPE CORE
XL1702	645 026 8908	FILTER,EMI 22000P

ASSY,PWB,AUDIO F7HA 1AA0B10E47700

TRANSISTOR		
Q3452	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q3453	405 014 4509	TR 2SC2412K T146 R

Ref. No.	Part No.	Description
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q3501	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q3502	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q3503	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
INTEGRATED CIRCUIT		
IC3451	409 445 1403	IC TDA9875A/V2
IC3500	409 367 2809	IC BA178M09T
	409 377 5401	IC L78M09CV
	409 370 0007	IC MC78M09CT
IC3501	409 398 9204	IC MM1369AD
	409 405 6004	IC MM1369BD
CAPACITOR		
C3118	403 149 9208	CERAMIC 0.01U Z 50V
C3119	403 149 9208	CERAMIC 0.01U Z 50V
C3130	403 039 2104	ELECT 47U M 6.3V
C3143	403 149 9208	CERAMIC 0.01U Z 50V
C3144	403 149 9208	CERAMIC 0.01U Z 50V
C3450	403 149 9208	CERAMIC 0.01U Z 50V
C3452	403 314 5905	CERAMIC 0.47U K 16V
	403 307 8807	CERAMIC 0.47U K 16V
C3453	403 157 2901	CERAMIC 47P J 50V
C3454	403 164 0204	CERAMIC 0.1U Z 25V
C3456	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
C3458	403 157 2901	CERAMIC 47P J 50V
C3459	403 039 2104	ELECT 47U M 6.3V
C3461	403 049 0008	ELECT 1U M 50V
C3462	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
C3467	403 086 2300	NP-ELECT 1U M 50V
C3468	403 086 2300	NP-ELECT 1U M 50V
C3469	403 086 2300	NP-ELECT 1U M 50V
C3473	403 149 9208	CERAMIC 0.01U Z 50V
C3474	403 149 9208	CERAMIC 0.01U Z 50V
C3476	403 314 5905	CERAMIC 0.47U K 16V
C3477	403 039 2104	ELECT 47U M 6.3V
C3480	403 039 2104	ELECT 47U M 6.3V
C3481	403 039 2104	ELECT 47U M 6.3V
C3482	403 149 9208	CERAMIC 0.01U Z 50V
C3483	403 149 9208	CERAMIC 0.01U Z 50V
C3484	403 039 2104	ELECT 47U M 6.3V
C3485	403 149 9208	CERAMIC 0.01U Z 50V
C3491	403 039 2104	ELECT 47U M 6.3V
C3492	403 149 9208	CERAMIC 0.01U Z 50V
C3493	403 149 9208	CERAMIC 0.01U Z 50V
C3495	403 192 5905	CERAMIC 0.1U K 25V
C3500	403 043 9106	ELECT 47U M 16V
C3501	403 049 4204	ELECT 10U M 50V
C3502	403 157 7302	CERAMIC 6800P K 50V
C3503	403 313 8006	CERAMIC 1000P J 25V
C3504	403 192 5905	CERAMIC 0.1U K 25V
C3505	403 043 9106	ELECT 47U M 16V
C3506	403 049 9803	ELECT 2.2U M 50V
C3507	403 215 2201	CERAMIC 0.01U K 50V
C3508	403 215 2201	CERAMIC 0.01U K 50V
C3509	403 215 2201	CERAMIC 0.01U K 50V
C3510	403 215 2201	CERAMIC 0.01U K 50V
C3511	403 313 8006	CERAMIC 1000P J 25V
C3512	403 192 5905	CERAMIC 0.1U K 25V
C3513	403 157 7302	CERAMIC 6800P K 50V
C3514	403 049 4204	ELECT 10U M 50V
C3515	403 049 9803	ELECT 2.2U M 50V
C3516	403 041 8804	ELECT 10U M 16V
C3517	403 269 5906	CERAMIC 0.22U K 16V
C3518	403 043 9106	ELECT 47U M 16V
C3520	403 043 9106	ELECT 47U M 16V
C3521	403 279 4302	CERAMIC 0.33U K 16V
	403 317 4608	CERAMIC 0.33U K 16V
C3522	403 279 4302	CERAMIC 0.33U K 16V
	403 317 4608	CERAMIC 0.33U K 16V
RESISTOR		
R3138	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3139	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3451	401 105 0405	MT-GLAZE 100 JA 1/16W
R3452	401 105 0405	MT-GLAZE 100 JA 1/16W
R3453	401 105 0603	MT-GLAZE 10K JA 1/16W
R3454	401 105 0405	MT-GLAZE 100 JA 1/16W
R3455	401 105 0603	MT-GLAZE 10K JA 1/16W
R3456	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3459	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3465	401 105 0405	MT-GLAZE 100 JA 1/16W
R3466	401 105 0603	MT-GLAZE 10K JA 1/16W
R3471	401 105 3208	MT-GLAZE 270 JA 1/16W
R3472	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3473	401 105 5202	MT-GLAZE 470 JA 1/16W
R3474	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R3475	401 105 5202	MT-GLAZE 470 JA 1/16W
R3476	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R3477	401 105 4700	MT-GLAZE 39K JA 1/16W
R3478	401 105 4700	MT-GLAZE 39K JA 1/16W
R3481	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3482	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3483	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3484	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R3501	401 261 0707	MT-GLAZE 7.5K FA 1/16W
R3502	401 105 0405	MT-GLAZE 100 JA 1/16W
R3503	401 105 0504	MT-GLAZE 1K JA 1/16W
R3504	401 105 0504	MT-GLAZE 1K JA 1/16W
R3505	401 105 7503	MT-GLAZE 82K JA 1/16W
R3506	401 105 2102	MT-GLAZE 18K JA 1/16W
R3507	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R3508	401 105 0504	MT-GLAZE 1K JA 1/16W
R3509	401 105 6605	MT-GLAZE 6.8K JA 1/16W
R3510	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R3511	401 105 3000	MT-GLAZE 220K JA 1/16W
R3512	401 105 8104	MT-GLAZE 56K JA 1/16W
R3513	401 105 8104	MT-GLAZE 56K JA 1/16W
R3514	401 105 4601	MT-GLAZE 3.9K JA 1/16W
R3515	401 105 0504	MT-GLAZE 1K JA 1/16W
R3516	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R3517	401 105 0504	MT-GLAZE 1K JA 1/16W
R3518	401 105 2805	MT-GLAZE 2.2K JA 1/16W
COIL		
L3105	645 018 9999	INDUCTOR,120 OHM
L3450	645 018 9999	INDUCTOR,120 OHM
L3452	645 008 2221	INDUCTOR,2.2U K
L3456	645 008 2221	INDUCTOR,2.2U K
L3457	645 008 2221	INDUCTOR,2.2U K
L3459	645 018 9999	INDUCTOR,120 OHM
MISCELLANEOUS		
K34A	645 018 9463	PLUG,PWB-PWB 20P
K34H	645 008 4058	TERMINAL,PLUG
X3451	645 024 7484	OSC,CRYSTAL 24.576MHZ

Ref. No.	Part No.	Description
ASSY,PWB,3L Y/C-F7HL	**1AA0B10E478A0**	
TRANSISTOR		
Q1301	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q1302	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q1304	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q1311	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q1313	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q2502	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q2503	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q7004	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q7005	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q7006	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q7007	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q7008	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q7031	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q7032	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q7041	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q7043	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q7051	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q7052	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q7053	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q7054	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q7055	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q7057	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q7058	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q7059	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q7118	405 044 7808	TR 2SC3689-TB
INTEGRATED CIRCUIT		
IC1301	409 018 3902	IC LA6393D
IC1302	409 301 2803	IC MN1381-Q
IC1303	410 260 8300	IC M34225M1-548SP
IC7101	409 442 1307	IC CXD2064Q
CAPACITOR		
C1301	403 258 9106	NP-ELECT 47U M 16V
C1302	403 113 3805	CERAMIC 1000P K 50V
C1303	403 169 2807	CERAMIC 330P J 50V
C1305	403 157 3106	CERAMIC 56P J 50V
C1306	403 200 0700	MT-POLYEST 0.1U J 50V
	403 237 8007	MT-COMPO 0.1U J 50V
C1316	403 149 9208	CERAMIC 0.01U Z 50V
C1317	403 149 9208	CERAMIC 0.01U Z 50V
C1318	403 039 6508	ELECT 100U M 10V
C1319	403 149 9208	CERAMIC 0.01U Z 50V
C1321	403 155 1302	CERAMIC 150P J 50V
C1331	403 043 9106	ELECT 47U M 16V
C1332	403 149 9208	CERAMIC 0.01U Z 50V
C1333	403 060 8403	POLYESTER 0.033U K 50V
	403 179 1609	POLYESTER 0.033U K 50V
C1334	403 149 9208	CERAMIC 0.01U Z 50V
C1335	403 051 0607	ELECT 4.7U M 50V
C1341	403 057 0601	POLYESTER 0.01U K 50V
	403 179 3801	POLYESTER 0.01U K 50V
C1364	403 039 6508	ELECT 100U M 10V
C2510	403 009 3001	CERAMIC 100P J 50V
C2511	403 049 0008	ELECT 1U M 50V
C2512	403 039 6508	ELECT 100U M 10V
C2513	403 149 9208	CERAMIC 0.01U Z 50V
C7001	403 258 7904	NP-ELECT 47U M 10V
C7002	403 166 9205	CERAMIC 10P J 50V
C7003	403 166 9205	CERAMIC 10P J 50V
C7004	403 041 4509	ELECT 470U M 10V
C7005	403 164 0204	CERAMIC 0.1U Z 25V
C7031	403 149 9208	CERAMIC 0.01U Z 50V

Ref. No.	Part No.	Description
C7032	403 157 4202	CERAMIC 220P J 50V
C7034	403 043 9106	ELECT 47U M 16V
C7035	403 149 9208	CERAMIC 0.01U Z 50V
C7052	403 042 7707	ELECT 22U M 16V
C7056	403 149 9208	CERAMIC 0.01U Z 50V
C7059	403 057 0601	POLYESTER 0.01U K 50V
	403 179 3801	POLYESTER 0.01U K 50V
C7060	403 041 4509	ELECT 470U M 10V
C7061	403 164 0204	CERAMIC 0.1U Z 25V
C7062	403 041 4509	ELECT 470U M 10V
C7063	403 164 0204	CERAMIC 0.1U Z 25V
C7064	403 259 0508	NP-ELECT 1U M 50V
C7101	403 258 8208	NP-ELECT 10U M 16V
C7102	403 164 0204	CERAMIC 0.1U Z 25V
C7103	403 164 0204	CERAMIC 0.1U Z 25V
C7104	403 043 9106	ELECT 47U M 16V
C7106	403 164 0204	CERAMIC 0.1U Z 25V
C7107	403 043 9106	ELECT 47U M 16V
C7108	403 164 0204	CERAMIC 0.1U Z 25V
C7109	403 164 0204	CERAMIC 0.1U Z 25V
C7111	403 164 0204	CERAMIC 0.1U Z 25V
C7112	403 164 0204	CERAMIC 0.1U Z 25V
C7113	403 164 0204	CERAMIC 0.1U Z 25V
C7115	403 164 0204	CERAMIC 0.1U Z 25V
C7116	403 164 0204	CERAMIC 0.1U Z 25V
C7117	403 043 9106	ELECT 47U M 16V
C7118	403 164 0204	CERAMIC 0.1U Z 25V
C7119	403 043 9106	ELECT 47U M 16V
C7121	403 164 0204	CERAMIC 0.1U Z 25V
C7122	403 043 9106	ELECT 47U M 16V
C7123	403 166 9502	CERAMIC 0.022U K 16V
C7124	403 043 9106	ELECT 47U M 16V
C7125	403 164 0204	CERAMIC 0.1U Z 25V

RESISTOR

R1301	401 105 0603	MT-GLAZE 10K JA 1/16W
R1302	401 105 3406	MT-GLAZE 27K JA 1/16W
R1303	401 105 0504	MT-GLAZE 1K JA 1/16W
R1304	401 105 0900	MT-GLAZE 120 JA 1/16W
R1305	401 105 4502	MT-GLAZE 390 JA 1/16W
R1306	401 105 3000	MT-GLAZE 220K JA 1/16W
R1307	401 105 2904	MT-GLAZE 22K JA 1/16W
R1309	401 105 0405	MT-GLAZE 100 JA 1/16W
R1310	401 105 5806	MT-GLAZE 56 JA 1/16W
R1312	401 105 8005	MT-GLAZE 1M JA 1/16W
R1313	401 105 0603	MT-GLAZE 10K JA 1/16W
R1314	401 105 0603	MT-GLAZE 10K JA 1/16W
R1315	401 105 1402	MT-GLAZE 150 JA 1/16W
R1316	401 105 1105	MT-GLAZE 12K JA 1/16W
R1317	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R1318	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R1321	401 105 0504	MT-GLAZE 1K JA 1/16W
R1322	401 105 5905	MT-GLAZE 560 JA 1/16W
R1323	401 105 0603	MT-GLAZE 10K JA 1/16W
R1326	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R1330	401 105 6506	MT-GLAZE 680 JA 1/16W
R1332	401 105 2904	MT-GLAZE 22K JA 1/16W
R1333	401 105 0603	MT-GLAZE 10K JA 1/16W
R1336	401 105 0603	MT-GLAZE 10K JA 1/16W
R1338	401 105 0603	MT-GLAZE 10K JA 1/16W
R1339	401 105 0405	MT-GLAZE 100 JA 1/16W
R1340	401 105 1105	MT-GLAZE 12K JA 1/16W
R1341	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R1342	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R1343	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R1351	401 105 0405	MT-GLAZE 100 JA 1/16W
R1352	401 105 0405	MT-GLAZE 100 JA 1/16W
R1353	401 105 0405	MT-GLAZE 100 JA 1/16W
R2510	401 105 4304	MT-GLAZE 330K JA 1/16W
R2512	401 105 0603	MT-GLAZE 10K JA 1/16W
R2514	401 105 1105	MT-GLAZE 12K JA 1/16W
R2515	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R2516	401 105 1600	MT-GLAZE 15K JA 1/16W
R2517	401 105 0504	MT-GLAZE 1K JA 1/16W
R2518	401 105 2003	MT-GLAZE 1.8K JA 1/16W
R7006	401 105 5905	MT-GLAZE 560 JA 1/16W
R7007	401 105 0504	MT-GLAZE 1K JA 1/16W
R7008	401 105 6506	MT-GLAZE 680 JA 1/16W
R7009	401 105 5103	MT-GLAZE 47 JA 1/16W
R7012	401 105 2904	MT-GLAZE 22K JA 1/16W
R7013	401 105 0603	MT-GLAZE 10K JA 1/16W
R7014	401 105 5806	MT-GLAZE 56 JA 1/16W
R7015	401 105 0504	MT-GLAZE 1K JA 1/16W
R7016	401 105 7305	MT-GLAZE 820 JA 1/16W
R7017	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R7018	401 105 5905	MT-GLAZE 560 JA 1/16W
R7019	401 105 5905	MT-GLAZE 560 JA 1/16W
R7031	401 105 2805	MT-GLAZE 2.2K JA 1/16W
R7032	401 105 7305	MT-GLAZE 820 JA 1/16W
R7033	401 105 0504	MT-GLAZE 1K JA 1/16W
R7034	401 105 1105	MT-GLAZE 12K JA 1/16W
R7036	401 105 2904	MT-GLAZE 22K JA 1/16W
R7037	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R7041	401 105 0603	MT-GLAZE 10K JA 1/16W
R7042	401 105 0603	MT-GLAZE 10K JA 1/16W
R7043	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R7046	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R7051	401 105 5806	MT-GLAZE 56 JA 1/16W
R7052	401 105 4700	MT-GLAZE 39K JA 1/16W
R7053	401 105 1600	MT-GLAZE 15K JA 1/16W
R7054	401 105 0504	MT-GLAZE 1K JA 1/16W
R7055	401 105 5905	MT-GLAZE 560 JA 1/16W
R7056	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R7057	401 105 0504	MT-GLAZE 1K JA 1/16W
R7059	401 105 5202	MT-GLAZE 470 JA 1/16W
R7060	401 105 5103	MT-GLAZE 47 JA 1/16W
R7061	401 105 0504	MT-GLAZE 1K JA 1/16W
R7062	401 105 3208	MT-GLAZE 270 JA 1/16W
R7064	401 105 5806	MT-GLAZE 56 JA 1/16W
R7065	401 105 5806	MT-GLAZE 56 JA 1/16W
R7066	401 105 4205	MT-GLAZE 33K JA 1/16W
R7067	401 105 0603	MT-GLAZE 10K JA 1/16W
R7068	401 105 0504	MT-GLAZE 1K JA 1/16W
R7069	401 105 5905	MT-GLAZE 560 JA 1/16W
R7071	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R7072	401 105 0504	MT-GLAZE 1K JA 1/16W
R7074	401 105 5202	MT-GLAZE 470 JA 1/16W
R7075	401 105 5103	MT-GLAZE 47 JA 1/16W
R7076	401 105 0504	MT-GLAZE 1K JA 1/16W
R7077	401 105 7305	MT-GLAZE 820 JA 1/16W
R7079	401 105 5806	MT-GLAZE 56 JA 1/16W
R7101	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R7102	401 105 2706	MT-GLAZE 220 JA 1/16W
R7103	401 105 2706	MT-GLAZE 220 JA 1/16W
R7104	401 105 6506	MT-GLAZE 680 JA 1/16W
R7106	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R7107	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R7108	401 105 4106	MT-GLAZE 3.3K JA 1/16W
R7110	401 105 0504	MT-GLAZE 1K JA 1/16W
R7112	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R7113	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R7114	401 105 8104	MT-GLAZE 56K JA 1/16W
R7116	401 105 5905	MT-GLAZE 560 JA 1/16W
R7118	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
R7120	401 105 0603	MT-GLAZE 10K JA 1/16W

VARIABLE RESISTOR

VR7001	645 002 3521	VR,SEMI,470 S

Ref. No.	Part No.	Description
TRANSFORMER		
T7051	645 028 2454	FILTER,LP 6MHZ
T7052	645 028 2454	FILTER,LP 6MHZ
COIL		
L1301	645 008 2405	INDUCTOR,330U J
L1305	645 008 2023	INDUCTOR,100U K
L7001	645 008 2450	INDUCTOR,4.7U J
L7031	645 008 2399	INDUCTOR,33U K
L7051	645 008 2382	INDUCTOR,33U J
L7052	645 008 2382	INDUCTOR,33U J
L7053	645 008 2382	INDUCTOR,33U J
L7101	645 008 2382	INDUCTOR,33U J
L7102	645 008 2382	INDUCTOR,33U J
L7103	610 237 1000	PIPE CORE
L7104	610 237 1000	PIPE CORE
L7105	645 008 2382	INDUCTOR,33U J
L7106	645 008 2382	INDUCTOR,33U J
L7107	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
L7108	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
L7109	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
L7111	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
L7112	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
DIODE		
D1301	407 149 0807	DIODE 1SS355-TE-17
D1302	407 149 0807	DIODE 1SS355-TE-17
MISCELLANEOUS		
XL1301	645 000 2328	FILTER,EMI 13000PF
XL1302	645 000 2328	FILTER,EMI 13000PF
XL7051	610 012 3991	JUNPER LEAD
XL7052	645 000 2250	FILTER,EMI 100PF
XL7053	645 000 2250	FILTER,EMI 100PF
X1301	645 006 1752	OSC,CERAMIC 4.000MHZ

ASSY,PWB,SCAN CONV-F7HL 1AA0B10E48300

Ref. No.	Part No.	Description
TRANSISTOR		
Q7201	405 136 2100	TR MMST3906-T146
Q7241	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q7242	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q7301	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q7302	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q7303	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q7304	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q7305	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q7306	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q7307	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q7308	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q7309	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q7310	405 014 4509	TR 2SC2412K T146 R
	405 014 4608	TR 2SC2412K T146 S
	405 015 8704	TR 2SC2812-L6-TB
	405 015 8902	TR 2SC2812-L7-TB
Q7311	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
Q7312	405 002 0308	TR 2SA1037K T146 R
	405 002 0407	TR 2SA1037K T146 S
	405 002 6706	TR 2SA1179-M6-TB
	405 002 6904	TR 2SA1179-M7-TB
INTEGRATED CIRCUIT		
IC7201	410 343 4809	IC SAA4977H/V1
IC7202	409 155 8105	IC TC7SU04F-(TE85L)
IC7203	410 348 3500	IC MC74HC4046AF
IC7204	409 397 3609	IC TC7SH00F-(TE85L)
IC7205	410 343 4908	IC SAA4991WP/V1
IC7206	410 343 5004	IC SAA4955TJ/V1
IC7207	410 343 5004	IC SAA4955TJ/V1
IC7208	409 152 5602	IC TC7S32F-TE85L
IC7241	409 354 8807	IC PST591CMT-L
IC7351	409 417 8409	IC L88M05T-TL
IC7352	409 417 8409	IC L88M05T-TL
IC7353	409 417 8706	IC L88M33T-TL
CAPACITOR		
C7201	403 164 0204	CERAMIC 0.1U Z 25V
C7202	403 164 0204	CERAMIC 0.1U Z 25V
C7203	403 041 2109	ELECT 47U M 10V
C7204	403 164 0204	CERAMIC 0.1U Z 25V
C7205	403 041 2109	ELECT 47U M 10V
C7206	403 164 0204	CERAMIC 0.1U Z 25V
C7207	403 061 9805	POLYESTER 0.047U J 50V
	403 179 1005	POLYESTER 0.047U J 50V
C7208	403 061 9805	POLYESTER 0.047U J 50V
	403 179 1005	POLYESTER 0.047U J 50V
C7209	403 061 9805	POLYESTER 0.047U J 50V
	403 179 1005	POLYESTER 0.047U J 50V
C7210	403 164 0204	CERAMIC 0.1U Z 25V
C7211	403 164 0204	CERAMIC 0.1U Z 25V
C7212	403 164 0204	CERAMIC 0.1U Z 25V
C7213	403 164 0204	CERAMIC 0.1U Z 25V
C7214	403 039 2104	ELECT 47U M 6.3V
C7215	403 041 2109	ELECT 47U M 10V
C7216	403 039 6508	ELECT 100U M 10V
C7217	403 056 9704	POLYESTER 0.01U J 50V
	403 178 9309	POLYESTER 0.01U J 50V
C7218	403 046 9905	ELECT 4.7U M 25V
C7219	403 157 3601	CERAMIC 100P J 50V
C7220	403 157 3601	CERAMIC 100P J 50V
C7221	403 164 0204	CERAMIC 0.1U Z 25V

Ref. No.	Part No.	Description
C7222	403 039 6508	ELECT 100U M 10V
C7223	403 164 0204	CERAMIC 0.1U Z 25V
C7224	403 164 0204	CERAMIC 0.1U Z 25V
C7225	403 139 7306	CERAMIC 18P J 50V
C7226	403 164 0204	CERAMIC 0.1U Z 25V
C7227	403 164 0204	CERAMIC 0.1U Z 25V
C7228	403 164 0204	CERAMIC 0.1U Z 25V
C7229	403 164 0204	CERAMIC 0.1U Z 25V
C7230	403 039 6508	ELECT 100U M 10V
C7231	403 164 0204	CERAMIC 0.1U Z 25V
C7232	403 038 1603	ELECT 100U M 6.3V
C7233	403 164 0204	CERAMIC 0.1U Z 25V
C7234	403 164 0204	CERAMIC 0.1U Z 25V
C7235	403 164 0204	CERAMIC 0.1U Z 25V
C7236	403 164 0204	CERAMIC 0.1U Z 25V
C7237	403 164 0204	CERAMIC 0.1U Z 25V
C7238	403 164 0204	CERAMIC 0.1U Z 25V
C7239	403 164 0204	CERAMIC 0.1U Z 25V
C7240	403 164 0204	CERAMIC 0.1U Z 25V
C7241	403 306 5401	CERAMIC 0.039U K 16V
C7242	403 279 4302	CERAMIC 0.33U K 16V
C7243	403 169 2807	CERAMIC 330P J 50V
C7244	403 260 2003	MT-COMPO 1U J 50V
C7247	403 164 0204	CERAMIC 0.1U Z 25V
C7301	403 043 9106	ELECT 47U M 16V
C7302	403 164 0204	CERAMIC 0.1U Z 25V
C7303	403 186 5300	NP-ELECT 22U M 16V
C7304	403 139 7504	CERAMIC 39P J 50V
C7305	403 153 9102	CERAMIC 5P C 50V
C7306	403 139 7504	CERAMIC 39P J 50V
C7308	403 186 5300	NP-ELECT 22U M 16V
C7309	403 139 7504	CERAMIC 39P J 50V
C7310	403 153 9102	CERAMIC 5P C 50V
C7311	403 139 7504	CERAMIC 39P J 50V
C7313	403 186 5300	NP-ELECT 22U M 16V
C7314	403 139 7504	CERAMIC 39P J 50V
C7315	403 153 9102	CERAMIC 5P C 50V
C7316	403 139 7504	CERAMIC 39P J 50V
C7351	403 044 9501	ELECT 100U M 25V
C7352	403 039 6508	ELECT 100U M 10V
C7353	403 044 9501	ELECT 100U M 25V
C7354	403 039 6508	ELECT 100U M 10V
C7355	403 044 9501	ELECT 100U M 25V
C7356	403 038 1603	ELECT 100U M 6.3V

RESISTOR

RB7201	645 037 0670	R-NETWORK 47X4 0.063W
	645 018 8930	R-NETWORK 47X4 1/16W
RB7202	645 037 0670	R-NETWORK 47X4 0.063W
	645 018 8930	R-NETWORK 47X4 1/16W
RB7203	645 037 0670	R-NETWORK 47X4 0.063W
	645 018 8930	R-NETWORK 47X4 1/16W
RB7204	645 037 0670	R-NETWORK 47X4 0.063W
	645 018 8930	R-NETWORK 47X4 1/16W
RB7205	645 037 0670	R-NETWORK 47X4 0.063W
	645 018 8930	R-NETWORK 47X4 1/16W
RB7206	645 037 0670	R-NETWORK 47X4 0.063W
	645 018 8930	R-NETWORK 47X4 1/16W
RB7207	645 037 0670	R-NETWORK 47X4 0.063W
	645 018 8930	R-NETWORK 47X4 1/16W
RB7208	645 037 0670	R-NETWORK 47X4 0.063W
	645 018 8930	R-NETWORK 47X4 1/16W
RB7209	645 037 0670	R-NETWORK 47X4 0.063W
	645 018 8930	R-NETWORK 47X4 1/16W
RB7210	645 037 0670	R-NETWORK 47X4 0.063W
	645 018 8930	R-NETWORK 47X4 1/16W
RB7211	645 037 0670	R-NETWORK 47X4 0.063W
	645 018 8930	R-NETWORK 47X4 1/16W
RB7212	645 037 0670	R-NETWORK 47X4 0.063W
	645 018 8930	R-NETWORK 47X4 1/16W
RB7213	645 037 0670	R-NETWORK 47X4 0.063W
	645 018 8930	R-NETWORK 47X4 1/16W
RB7214	645 037 0670	R-NETWORK 47X4 0.063W
	645 018 8930	R-NETWORK 47X4 1/16W
RB7215	645 037 0670	R-NETWORK 47X4 0.063W
	645 018 8930	R-NETWORK 47X4 1/16W
R7201	401 105 0405	MT-GLAZE 100 JA 1/16W
R7202	401 105 0405	MT-GLAZE 100 JA 1/16W
R7204	401 105 5103	MT-GLAZE 47 JA 1/16W
R7205	401 105 5103	MT-GLAZE 47 JA 1/16W
R7206	401 105 0405	MT-GLAZE 100 JA 1/16W
R7207	401 105 0405	MT-GLAZE 100 JA 1/16W
R7208	401 105 5103	MT-GLAZE 47 JA 1/16W
R7209	401 105 5103	MT-GLAZE 47 JA 1/16W
R7210	401 105 5103	MT-GLAZE 47 JA 1/16W
R7211	401 105 5103	MT-GLAZE 47 JA 1/16W
R7212	401 105 5103	MT-GLAZE 47 JA 1/16W
R7213	401 105 0603	MT-GLAZE 10K JA 1/16W
R7214	401 105 5103	MT-GLAZE 47 JA 1/16W
R7215	401 105 5103	MT-GLAZE 47 JA 1/16W
R7216	401 105 5103	MT-GLAZE 47 JA 1/16W
R7217	401 105 0405	MT-GLAZE 100 JA 1/16W
R7218	401 105 7404	MT-GLAZE 8.2K JA 1/16W
R7219	401 105 1204	MT-GLAZE 120K JA 1/16W
R7220	401 105 0702	MT-GLAZE 100K JA 1/16W
R7221	401 105 5103	MT-GLAZE 47 JA 1/16W
R7222	401 105 0603	MT-GLAZE 10K JA 1/16W
R7223	401 105 5103	MT-GLAZE 47 JA 1/16W
R7224	401 105 5103	MT-GLAZE 47 JA 1/16W
R7225	401 105 5103	MT-GLAZE 47 JA 1/16W
R7229	401 105 5103	MT-GLAZE 47 JA 1/16W
R7231	401 105 1501	MT-GLAZE 1.5K JA 1/16W
R7232	401 105 3307	MT-GLAZE 2.7K JA 1/16W
R7233	401 105 2706	MT-GLAZE 220 JA 1/16W
R7234	401 105 2706	MT-GLAZE 220 JA 1/16W
R7240	401 105 5301	MT-GLAZE 4.7K JA 1/16W
R7241	401 105 0702	MT-GLAZE 100K JA 1/16W
R7242	401 105 0702	MT-GLAZE 100K JA 1/16W
R7243	401 105 0603	MT-GLAZE 10K JA 1/16W
R7245	401 105 8005	MT-GLAZE 1M JA 1/16W
R7301	401 105 3703	MT-GLAZE 3K JA 1/16W
R7302	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R7303	401 105 5806	MT-GLAZE 56 JA 1/16W
R7304	401 105 5905	MT-GLAZE 560 JA 1/16W
R7305	401 113 5003	MT-GLAZE 240 JA 1/16W
R7306	401 113 5003	MT-GLAZE 240 JA 1/16W
R7307	401 105 5202	MT-GLAZE 470 JA 1/16W
R7308	401 105 5202	MT-GLAZE 470 JA 1/16W
R7309	401 105 6506	MT-GLAZE 680 JA 1/16W
R7310	401 105 0504	MT-GLAZE 1K JA 1/16W
R7311	401 105 3703	MT-GLAZE 3K JA 1/16W
R7312	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R7313	401 105 5806	MT-GLAZE 56 JA 1/16W
R7314	401 105 5905	MT-GLAZE 560 JA 1/16W
R7315	401 113 5003	MT-GLAZE 240 JA 1/16W
R7316	401 113 5003	MT-GLAZE 240 JA 1/16W
R7317	401 105 5202	MT-GLAZE 470 JA 1/16W
R7318	401 105 5202	MT-GLAZE 470 JA 1/16W
R7319	401 105 6506	MT-GLAZE 680 JA 1/16W
R7320	401 105 0504	MT-GLAZE 1K JA 1/16W
R7321	401 105 3703	MT-GLAZE 3K JA 1/16W
R7322	401 105 6001	MT-GLAZE 5.6K JA 1/16W
R7323	401 105 5806	MT-GLAZE 56 JA 1/16W
R7324	401 105 5905	MT-GLAZE 560 JA 1/16W
R7325	401 113 5003	MT-GLAZE 240 JA 1/16W
R7326	401 113 5003	MT-GLAZE 240 JA 1/16W
R7327	401 105 5202	MT-GLAZE 470 JA 1/16W
R7328	401 105 5202	MT-GLAZE 470 JA 1/16W

Ref. No.	Part No.	Description
R7329	401 105 6506	MT-GLAZE 680 JA 1/16W
R7330	401 105 0504	MT-GLAZE 1K JA 1/16W
R7331	401 105 0504	MT-GLAZE 1K JA 1/16W
R7333	401 105 5806	MT-GLAZE 56 JA 1/16W
R7334	401 105 5806	MT-GLAZE 56 JA 1/16W
R7335	401 105 5806	MT-GLAZE 56 JA 1/16W
R7336	401 105 5806	MT-GLAZE 56 JA 1/16W
R7337	401 105 5806	MT-GLAZE 56 JA 1/16W
R7338	401 105 5806	MT-GLAZE 56 JA 1/16W
⚠ R7351	401 066 3002	OXIDE-MT 2.2 JA 2W
⚠ R7352	401 064 6302	OXIDE-MT 10 JA 2W
TRANSFORMER		
T7201	645 037 5828	TRANS,OSC,30MHZ
COIL		
L7201	645 008 2368	INDUCTOR,3.3U K
L7202	645 008 2368	INDUCTOR,3.3U K
L7203	645 008 2368	INDUCTOR,3.3U K
L7204	645 008 2368	INDUCTOR,3.3U K
L7206	645 008 2009	INDUCTOR,10U K
L7207	645 008 2009	INDUCTOR,10U K
L7209	645 008 2368	INDUCTOR,3.3U K
L7210	645 008 2368	INDUCTOR,3.3U K
L7211	610 012 3991	JUNPER LEAD
L7212	610 012 3991	JUNPER LEAD
L7213	610 012 3991	JUNPER LEAD
L7214	610 012 3991	JUNPER LEAD
L7215	645 016 0349	INDUCTOR,600 OHM
L7216	645 016 0349	INDUCTOR,600 OHM
L7217	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
L7218	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
L7219	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
L7220	645 016 0349	INDUCTOR,600 OHM
L7221	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
L7222	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
L7223	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
L7224	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
L7225	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
L7226	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
L7227	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
L7228	401 105 7909	MT-GLAZE 0.000 ZA 1/16W
L7301	645 008 2009	INDUCTOR,10U K
L7302	645 008 2450	INDUCTOR,4.7U J
L7303	645 008 2450	INDUCTOR,4.7U J
L7304	645 008 2450	INDUCTOR,4.7U J
L7351	645 008 2368	INDUCTOR,3.3U K
L7352	610 237 1000	PIPE CORE
L7353	610 237 1000	PIPE CORE
L7354	610 237 1000	PIPE CORE
L7355	610 237 1000	PIPE CORE
DIODE		
D7201	407 149 0807	DIODE 1SS355-TE-17
D7202	407 105 1800	VARACTOR DI 1SV215
D7241	407 149 0807	DIODE 1SS355-TE-17
D7351	407 149 0807	DIODE 1SS355-TE-17
D7352	407 149 0807	DIODE 1SS355-TE-17
D7353	407 004 1000	DIODE DCC010-TA
D7354	407 004 1000	DIODE DCC010-TA
MISCELLANEOUS		
K72A	645 037 5668	SOCKET,PWB-PWB 15P
K72B	645 026 6898	SOCKET,PWB-PWB 12P
XL7201	645 025 0620	FILTER,EMI 85PF
XL7202	645 025 0620	FILTER,EMI 85PF
XL7203	645 025 0620	FILTER,EMI 85PF
XL7205	645 026 8908	FILTER,EMI 22000P
XL7206	645 025 0620	FILTER,EMI 85PF
XL7207	645 025 0620	FILTER,EMI 85PF
XL7208	645 025 0620	FILTER,EMI 85PF
XL7209	645 000 2250	FILTER,EMI 100PF
XL7210	645 000 2250	FILTER,EMI 100PF
XL7211	645 000 2250	FILTER,EMI 100PF
XL7212	645 000 2250	FILTER,EMI 100PF

ASSY,PWB,SUB POWER-F7HL 1AA0B10E49100

TRANSISTOR		
Q1652	405 016 9403	TR 2SC3068
INTEGRATED CIRCUIT		
IC1651	409 416 7908	IC BA05T
CAPACITOR		
⚠ C1601	404 056 1408	MT-POLYEST 0.1U M 250V
	404 074 6508	MT-COMPO 0.1U K 250V
⚠ C1603	404 056 1408	MT-POLYEST 0.1U M 250V
	404 074 6508	MT-COMPO 0.1U K 250V
⚠ C1604	404 056 1408	MT-POLYEST 0.1U M 250V
	404 074 6508	MT-COMPO 0.1U K 250V
C1651	403 043 1902	ELECT 2200U M 16V
C1652	403 039 6508	ELECT 100U M 10V
C1653	403 047 5005	ELECT 470U M 25V
C1654	403 069 8305	CERAMIC 0.01U Z 50V
C1655	403 069 8305	CERAMIC 0.01U Z 50V
C1656	403 069 8305	CERAMIC 0.01U Z 50V
C1657	403 047 3100	ELECT 47U M 25V
C1658	403 069 8305	CERAMIC 0.01U Z 50V
RESISTOR		
⚠ RL1601	645 028 2713	RELAY
	645 030 5597	RELAY
⚠ R1601	401 010 4802	CARBON 470K JA 1/2W
⚠ R1602	402 074 8805	WIRE WOUND 4.7 KA 10W
⚠ R1603	402 074 5804	WIRE WOUND 1.2 KA 10W
⚠ R1605	402 074 8805	WIRE WOUND 4.7 KA 10W
R1653	401 026 4308	CARBON 3.3K JA 1/6W
R1654	401 027 3003	CARBON 56K JA 1/6W
R1655	401 013 5301	CARBON 1.2K JA 1/4W
R1656	401 021 1906	CARBON 560 JA 1/4W
VARIABLE RESISTOR		
⚠ VA1601	407 130 2902	VARISTOR ENC471D-14A
TRANSFORMER		
⚠ T1651	645 033 1015	TRANS,POWER
COIL		
⚠ L1601	645 009 3531	LINE FILTER
⚠ L1602	645 009 3531	LINE FILTER
⚠ L1603	645 012 0602	LINE FILTER
L1611	610 237 2328	PIPE CORE
L1612	610 237 2328	PIPE CORE
⚠ L1617	645 012 0602	LINE FILTER
DIODE		
D1651	407 005 8602	DIODE ERA15-02
	407 088 6502	DIODE MPG06D
D1652	407 005 8602	DIODE ERA15-02
	407 088 6502	DIODE MPG06D
D1653	407 005 8602	DIODE ERA15-02
	407 088 6502	DIODE MPG06D
D1654	407 005 8602	DIODE ERA15-02
	407 088 6502	DIODE MPG06D
D1656	407 012 4406	DIODE 1SS133
D1658	407 005 8602	DIODE ERA15-02
	407 088 6502	DIODE MPG06D
D1659	407 005 4505	DIODE DS442X
	408 008 2406	DIODE 1N4148

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
	407 012 4406	DIODE 1SS133			
	407 013 4207	DIODE 1S2076			
	407 013 7109	DIODE 1S2473			
D1661	407 005 8602	DIODE ERA15-02			
	407 088 6502	DIODE MPG06D			
D1662	407 063 9108	ZENER DIODE MTZJ6.8B			

MISCELLANEOUS

⚠ F1601	423 022 2102	FUSE 250V 4A	
F1601Y	645 000 5077	HOLDER,FUSE	
F1601Z	645 000 5077	HOLDER,FUSE	
⚠ PS1601	408 013 3801	TH PTH451C262BF140M270	
	408 039 2406	THERMISTOR 2322 662 96702	

ASSY,PWB,HARMONICS-F7HA 1AA0B10E5170A

COIL

⚠ L1691	645 025 1191	INDUCTOR,6.1M	

ASSY,PWB,SENSOR-F7HL 1AA0B10E5170B

TRANSISTOR

Q5991	405 011 8401	TR 2SC1740S-Q	
	405 011 8500	TR 2SC1740S-R	
	405 011 8609	TR 2SC1740S-S	
	405 012 2002	TR 2SC1815-GR	
	405 012 2309	TR 2SC1815-Y	
	405 020 7501	TR 2SC945A-PA	
	405 020 7709	TR 2SC945A-QA	

CAPACITOR

C5991	403 069 8305	CERAMIC 0.01U Z 50V	
C5992	403 043 9106	ELECT 47U M 16V	

RESISTOR

R5991	401 024 7707	CARBON 100K JA 1/6W	
R5992	401 027 9302	CARBON 820K JA 1/6W	
R5993	401 027 2600	CARBON 5.6K JA 1/6W	
R5994	401 025 1902	CARBON 15K JA 1/6W	
R5995	401 025 4606	CARBON 18K JA 1/6W	

DIODE

D5991	407 099 5204	ZENER DIODE MTZJ5.1B	

MISCELLANEOUS

PC5991	407 043 1108	PHOTO DIODE P1201-01	
	407 173 5809	PHOTO DIODE P1201-29	
	407 168 3001	PHOTO DIODE U5C-40LC	
PC5991A	610 273 7929	HOLDER LED-S4KF	

All information in this manual is correct at the start of production. Sanyo reserves the right to modify components and procedures in order to comply with their continuous improvement policy.

SANYO

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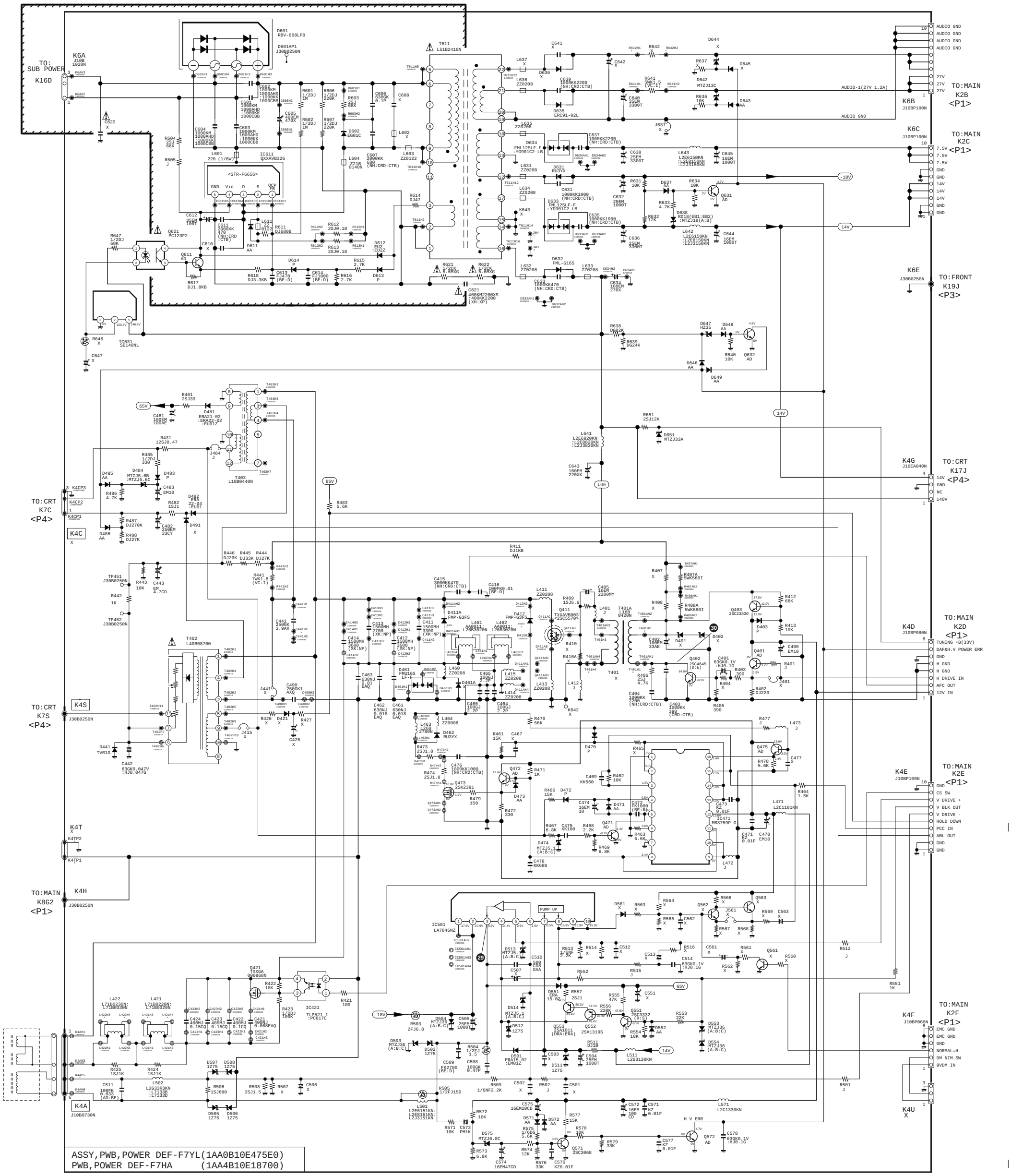


LIST OF REPLACEABLE TRANSISTORS

(2SA933S TYPE)

	14TH CODE	2SA933S	2SA1015	2SA564A
AB	7T200181	R	Y,GR	R
AC	7T200182	Q,R	O,Y,GR	Q,R

(2SA1037K CHIP TYPE)

	14TH CODE	2SA1179	2SA1037
AJ	7T200221	M6,M7	R,S

(2SC1740S TYPE)

	14TH CODE	2SC1740S	2SC945A	2SC1815
AD	7T200183	Q,R,S	QA,PA	Y,GR
AE	7QT00202	Q,R,S	RA,QA,PA	O,Y,GR

(2SC2412K CHIP TYPE)

	14TH CODE	2SC2812	2SC2412K
AH	7T200220	L6,L7	R,S

(DIODE)

	14TH CODE	
P	7DD00021	DD1S2076A---N,DD1S2471----N,DDXAAED0434--
R	7DD00019	DD1S2076----N,DD1S2473----N,DDDS442X----N DDXAAED0434--
AA	7DD00192	DD1S2076----N,DD1S2473----N,DDDS442X----N DDXAAED0434--,DD1SS133----N

COLOUR TELEVISION

SANYO

CHASSIS SERIES **WB5**

MODEL NUMBER **CE32WH3-F**

SERVICE REF.NO. **CE32WH3-F-01**

The service Precaution:
The area enclosed by this line (⚠) is directly connected with AC mains voltage. When servicing the area, connect an isolating transformer between TV receiver and AC line to eliminate hazard of electric shock.

Product safety notice:
Product safety should be considered when a component replacement is made in any area of a receiver. Components indicated by a mark ⚠ in this circuit diagram show components whose values have special significance to product safety. It is particularly recommended that only parts specified on the part service manual be used for components replacement pointed out by the mark.

PRECAUZIONE DI SERVIZIO
L'area inclusa in questa linea (⚠) è collegata direttamente con la tensione della rete CA quando si serve l'area collegare un trasformatore isolante tra il ricevitore TV e la linea CA per eliminare il pericolo di scossa elettrica.

NOTIZIE SULLA SICUREZZA DI FUNZIONAMENTO
Ogni sotituzione di componenti va fatta tenendo conto della sicurezza di funzionamento. I componenti indicati sollo schema con il simbolo ⚠ hanno particolare importanza per il sicuro funzionamento del TV.
I suddetti componenti devono essere sostituti esclusivamente con quelli indicati nell'elenco.

Note sul diagramma di circuito :
1. Tutte i valori di resistenza sono in ohm, K=1,000, M=1,000,000.
2. Tutte le resistenze nominali watt sono di 1/6 a meno che sia specificato altrimenti.
3. Eccetto per i condensatori elettrolitici, tutti i valori di capacitanza di meno di sono espressi in µF, e di piu di 1 sono in pF. I varoli di capacitanza elettrolitici sono in µF.
4. Tutti volt di capacitanza nominali sono di 50V a meno cha sia indicato altrimenti.
5. Tutti valori di inductanza sono in µH.
6. I valori letti del voltaggio presi con un "VTVM" proven gono dal punto indicato sulla massa del chassis, i valori di voltaggio presi usando un segnale di barre colore sono con tutti i controlli alle loro posizioni normali ed il commutatore AFC in posizione "OFF". Il voltaggio puo variare con l'intensita del segnale.
7. Le forme di onda furono prese con il segnale di barre colore e i controlli regolati oppure le forme di onda di immagine normale furono prese usando un oscillatore a larga banda ed una sonda bassa capasità.
8. Rispetto a quando indicato su questo schema possono essere state introdotte delle modifiche.
9. ■ I diodo 1S1555 possono essere sostitutti con 1S2473, 1S2076 oppure DS472 a meno che sia specificato altrimenti.
   ■ I transistori possono essere sostitutti con 2SC536(Q,R,S), 2SC1740(Q,R,S), 2SC945A(Q,R,P) oppure 2SC1815(G,O,Y) a meno che sia specificato altrimenti.
   ■ Il transistore 2SA608(E,F) puo essere sostituito con 2SA933(Q,R), 2SA564(QA,RA), oppure 2SA1015(O,Y) a meno che sia specificato altrimenti.

Circuit diagram notes :
1. All resistance values are in ohms, K=1,000, M=1,000,000.
2. All resistance rated wattages are 1/6W unless otherwise noted.
3. Excepting electrolytic capacitors, all capacitance values of less than 1 are expressed in µF and more than 1 are pF.
4. All capacitance rated voltages are 50V unless otherwise noted.
5. All inductance values are in µH.
6. Voltage readings taken a digital voltmeter are from point indicated chassis ground. Voltage readings taken by using a colour bar signal are with all controls at normal position. Some voltages may vary with signal strength.
7. Waveforms were taken with colour bar and controls adjusted for normal picture. Waveforms were taken by using a wide band oscilloscope and a low capacity probe.

ASSY,PWB,MAIN-F7HL/YL(1AA0B10E474B0)
PWB,MAIN-F7HA (1AA4B10E18600)

IC674 BA05T
IC673 BA08T
IC672 BA09T
IC671 BA12T
IC676 BA12T
IC809 CXA1315MP
IC811 MN1381-Q
IC802 QXXAAJQ0182--
IC201 TDA9178T/N1P
IC803 24LC08B/P
IC302 TC7SET32FP
IC301 TC7W53FUP
IC202 QXXAVB544P <TDA9330H>
IC351 NJM2058M

TO:P/DEF K6B <P2> — K2B J11EH100N
TO:P/DEF K6C <P2> — K2C J11EH100N
TO:P/DEF K4E <P2> — K2E J11EH100N
TO:S/POW K16V <P2> — K8V J10EA060N
K8W X
TO:CRT K7D <P4> — K3D J10EA090N
TO:P/DEF K4D <P2> — K2D J11EH080N
TO:P/DEF K4F <P2> — K2F J11EH060N
TO:GND CONECTOR — K8G3 J30B0250N
K8SP2 X — K8SP1 X
K8R J10KA120N
K8Q J10KA150N
KIIC J30B0250N
K72B — K72A <P2>

ASSY,PWB,SCAN CONV-F7HL(1AA0B10E48300)
PWB,SCAN CONV-F7HL (1AA4B10E19900)

LIST OF REPLACEABLE TRANSISTORS

(2SA933S TYPE)

	14TH CODE	2SA933S	2SA1015	2SA564A
AB	7T200181	R	Y,GR	R
AC	7T200182	Q,R	O,Y,GR	Q,R

(2SA1037K CHIP TYPE)

	14TH CODE	2SA1179	2SA1037
AJ	7T200221	M6,M7	R,S

(2SC1740S TYPE)

	14TH CODE	2SC1740S	2SC945A	2SC1815
AD	7T200183	Q,R,S	QA,PA	Y,GR
AE	7QT00202	Q,R,S	RA,QA,PA	O,Y,GR

(2SC2412K CHIP TYPE)

	14TH CODE	2SC2812	2SC2412K
AH	7T200220	L6,L7	R,S

(DIODE)

	14TH CODE	
P	7DD00021	DD1S2076A----N,DD1S2471----N,DDXAAED0434--
R	7DD00019	DD1S2076----N,DD1S2473----N,DDDS442X----N DDXAAED0434--
AA	7DD00192	DD1S2076----N,DD1S2473----N,DDDS442X----N DDXAAED0434--,DD1SS133----N

ASSY,PWB,AUDIO F7HA (1AA0B10E47700)
PWB,AUDIO F7HA (1AA4B10E1920A)

9.0V-REG
IC3500
BA178M09T
L78M09CV
MC78M09CT

IC3451
TDA9875
A/V2

IC3451
X

IC3111
X
3.3V-REG

K34H
J30B0250N
TO:GND
CONCTOR

K34E
X

K34G
J30B0250N
TP

K34A
J10EU200N
TO:MAIN
K8H
<P1>

TP
K17L
J30B0250N

ASSY,PWB,CRT-F7HL(1AA0B10E476A0)
PWB,CRT-F7HA (1AA4B10E19000)

CRT
Q901
BXXAVB115VIU-
<W76EGV023X122> 100Hz

IC711
TDA6111Q/N4N
B

IC721
TDA6111Q/N4N
G

IC731
TDA6111Q/N4N
R

TO:GND
CONECTOR
TO:B/TERM
K10G
TO:P/DEF
K4S
<P2>
SCREEN
TO:P/DEF
K4C
<P2>
TO:MAIN
K3D
<P1>
TO:P/DEF
K4G
<P2>

K7G
K7F
J10EA020N
K7S
J30B0250N
K7C
X
K7D
J10EA090N
K17B
J10EA030N
K17J
J10EA040N

VM COIL

LIST OF REPLACEABLE TRANSISTORS
(2SA933S TYPE)

	14TH CODE	2SA933S	2SA1015	2SA564A
AB	7T200181	R	Y,GR	R
AC	7T200182	Q,R	O,Y,GR	Q,R

(2SA1037K CHIP TYPE)

	14TH CODE	2SA1179	2SA1037
AJ	7T200221	M6,M7	R,S

(2SC1740S TYPE)

	14TH CODE	2SC1740S	2SC945A	2SC1815
AD	7T200183	Q,R,S	QA,PA	Y,GR
AE	7QT00202	Q,R,S	RA,QA,PA	O,Y,GR

(2SC2412K CHIP TYPE)

	14TH CODE	2SC2812	2SC2412K
AH	7T200220	L6,L7	R,S

(DIODE)

	14TH CODE	
P	7DD00021	DD1S2076A---N,DD1S2471----N,DDXAAED0434--
R	7DD00019	DD1S2076----N,DD1S2473----N,DDDS442X----N DDXAAED0434--
AA	7DD00192	DD1S2076----N,DD1S2473----N,DDDS442X----N DDXAAED0434--,DD1SS133----N

CRT

BACK TERMINAL | AV SW | AUDIO OUT

28-F7HL M-PRO

8. This circuit diagram covers a basic or representative chassis only. There may be some components or partial circuit differences between the actual chassis and the circuit diagram.
9. ■ Diode 1S1555 may be replaced with 1S2473, 1S2076 or DS472 unless otherwise noted.
■ Transistor 2SC536(Q,R,S), 2SC1740(Q,R,S), 2SC945A(Q,R,P) or 2SC1815(G,O,Y) unless otherwise noted.
■ Transistor 2SA608(E,F) may be replaced with 2SA933(Q,R), 2SA564(QA,RA), or 2SA1015(O,Y) unless otherwise noted.

Expression of capacitance and resistance in circuit diagram.

Capacitance (Example)
1000 C M 2000 D
- Characteristic
- Capacitance value (220pF)
- Tolerance (±20%)
- Kind(Ceramic)
- Rated voltage (1,000V)

J= ± 5%
K= ± 10%
M= ± 20%

T, A, U, D : Electrolytic
C, K, B : Ceramic
F : Mylar film
M, N : Polypropylene
Z : Metallized paper

Resistance (Example)
1/2 N J 1.2
- Resistance value (1.2Ω)
- Tolerance (±5%)
- Kind (M.carbon)
- Rated wattage(1/2W)

D : Carbon
N : Metallized carbon
S : Oxide metallized
W : Wire wounding
C : Solid

Terminal guide

C : Collector
B : Base
E : Emitter

A : Anode
K : Kathode

Chip Components
Transistor
Diode
Resistor
123 12 x 10³= 12k

<P3>

ASSY,PWB,FRONT-F7HL(1AA0B10E473BC)
PWB,FRONT-F7HA (1AA4B10E1880C)

K19F

X

K8F
J10EA120N

K8S
X

IC801
QXXAVB332M
<ST92R195>

IC101
QXXAVB551P
<TDA9321H>

IC001 TA8200AH

IC807
PCF8574ATP

IC808
PCF8574
ATP

IC806
MC14066BFL

IC804
MC14066BFL

IC3051
X

A101
F1BEB0170
TUNER(WITH PLL & BAND SW)

K8G2
J30B0250N

K8G1
X

TO:P/DEF
K4H

K70P

K70M

K8P
J10KA150N

K8M
J10KA120N

K8D
J10KA150N

K8C
J10KA150N

<P3>

ASSY,PWB,3L Y/C-F7HL(1AA0B10E478A0)
PWB,3L Y/C-F7HA (1AA4B10E18900)

K10D

K10C

ASSY,PWB,TERMINAL-F7HA(1AA0B10E4730A)
PWB,TERMINAL-F7HA (1AA4B10E1880A)

<P4>

K8L
X

K8J
X

K8H
J11RF200N

K34A

ASSY,PWB,AUDIO OUT-F7HA(1AA0B10E4770)
PWB,AUDIO OUT-F7HA (1AA4B10E19200)

K8B
J11RF250N

K12B

K12A

ASSY,PWB,AV SW-F7HL(1AA0B10E473A0)
PWB,AV SW-F7HA (1AA4B10E18890)

K8A
J11RF200N

<P4>

K8G4
X

ASSY,PWB,SCAN CONV-F7HL(1AA0B10E48300)
PWB,SCAN CONV-F7HL (1AA4B10E20000)

IC7205
QXXAVB335---P
SAA4991WP/V1

IC7206
QXXAVB336P
SAA4955TJ/V1

IC7207
QXXAVB336P
SAA4955
TJ/V1

IC7201
QXXAVB334P
SAA4977H/V1

TP-E1

FM2

FM1

IC7351 L88M05TP

IC7352 L88M05TP

IC7353 L88M33TP

IC7204 TC7SH00FP

IC7202 TC7SU04F

IC7208 TC7S32FP

IC7203 QXXAVB509P MC74HC4046AF

IC7241 PST591CMT

K72A J11KA151N

K72B J11KA121N

TO:MAIN K8Q <P1>

TO:MAIN K8R <P1>

TO:MAIN K8V <P1>

TO:S/POW K16B

TO HARMONICS (POTION) K169B

TO: POW/DEF K6A

TO AC CORD

TO FRONT K6S <P3>

ASSY,PWB,SUB POWER-F7HL/YL(1AA0B10E49100)
PWB,SUB POWER-F7HA(1AA4B10E19900)

LIVE MAINS AREA

K16H J30B0250N

K16B J10KV020N

K16D J10B1020N

K16A J30B0250N

K16G2 J30B0250N

K16G1 J30B0250N

K16C J10B1030N

K16E X

K16V J10EA060N

KSP X

PS1601 EV0038: EV0052

RL1601 S20B0460N :S20B0480N

RL1601H2 RL1601H3 RL1601H1 RL1601H4

D1656 1SS133

<5V> IC1651 BA05T

IC1651H1 IC1651H2

D1652 MPG06D: ERA15-02

D1654 MPG06D: ERA15-02

D1653 MPG06D: ERA15-02

D1651 MPG06D: ERA15-02

D1661 MPG06D: ERA15-02

D1658 MPG06D: ERA15-02

D1659 AA

D1662 MTZJ6.8B

T1651 L50B17000

T1651H1 T1651H2 T1651H3 T1651H4 T1651H5

Q1652 2SC3068

R1653 3.3K

R1654 56K

R1655 DJ1.2K

R1656 DJ560

C1605 X

C1652 10EM 100

C1651 16EM 2200

C1654 KZ 0.01F

C1655 KZ 0.01F

C1656 KZ 0.01F

C1657 25EM47

C1658 KZ 0.01F

C1653 25EM 470

R1602 10WK4.7VC

R1605 10WK4.7VC

R1603 10WK1.2VC

R1604 X

L1615 X

L1618 X

L1619 X

L1613 X

L1617 F35B0310N

L1616 X

L1614 X

L1603 F35B0310N

L1611 Z20103XXA

L1612 Z20103XXA

VA1601 ENC471 D14A

VA602 X

VA603 X

F1601 F32S4 A2LTTS <4A>

F1601Y J20B00100: J3E20333-

F1601Z J20B00100: J3E20333-

R1601 1/2DJ470K

C1601 250GM0.1XBC: 250HM0.1XD

C1603 250GM0.1XBC: 250HM0.1XD

C1604 250GM0.1XBC: 250HM0.1XD

C7201 25KZ 0.1GQF

C7202 25KZ 0.1GQF

C7203 10EM 47

C7204 25KZ 0.1GQF

C7205 10EM 47

C7206 25KZ 0.1GQF

C7207 F10.047 (BE:D)

C7208 F10.047 (BE:D)

C7209 F10.047 (BE:D)

C7210 25KZ0.1GQF

C7211 25KZ 0.1GQF

C7212 25KZ 0.1GQF

C7213 25KZ 0.1GQF

C7214 6.3EM 47

C7215 10EM 47

C7216 10EM 100

C7217 FJ0.01 (BE:D)

C7218 25EM 4.7

C7219 CJ100 C6Q

C7220 CJ100 C6Q

C7221 25KZ 0.1GQF

C7222 10EM 100

C7223 25KZ 0.1GQF

C7224 25KZ0.1GQF

C7225 CJ18 C6Q

C7226 25KZ 0.1GQF

C7227 25KZ 0.1GQF

C7228 25KZ 0.1GQF

C7229 25KZ 0.1GQF

C7230 10EM 100

C7231 25KZ 0.1GQF

C7232 1/16GJ47C

C7233 25KZ 0.1GQF

C7234 25KZ 0.1GQF

C7235 25KZ 0.1GQF

C7236 25KZ 0.1GQF

C7237 25KZ0.1GQF

C7238 25KZ 0.1GQF

C7239 25KZ 0.1GQF

C7240 25KZ 0.1GQF

C7241 16KK 0.039GQ

C7242 16KK 0.33BA

C7243 CJ330 C6Q

C7244 HJ1G

C7247 25KZ 0.1GQF

C7301 16EM 47

C7302 25KZ 0.1GQF

C7303 16PM22K

C7304 CJ39 C6Q

C7305 CD5CGQ

C7306 CJ39 C6Q

C7307 X

C7308 16PM22K

C7309 CJ39 C6Q

C7310 CD5CGQ

C7311 CJ39 C6Q

C7312 X

C7313 16PM22K

C7314 CJ39 C6Q

C7315 CD5CGQ

C7316 CJ39 C6Q

C7317 X

C7352 10EM100

C7351 25EM100

C7354 10EM100

C7353 25EM100

C7356 6.3EM100

C7355 25EM100

R7223 1/16 GJ47C

R7224 1/16 GJ47C

R7225 1.16GJ47C

R7226 1.16GJ47C

R7201 1/16 GJ 100C

R7202 1/16 GJ 100C

R7203 1/16GJ47C

R7204 1/16GJ47C

R7205 1/16GJ47C

R7206 1/16GJ47C

R7207 1/16GJ47C

R7208 1/16GJ47C

R7209 1/16GJ47C

R7210 1/16 GJ47C

R7211 1/16 GJ47C

R7212 1/16 GJ47C

R7213 1/16GJ 10KC

R7214 1/16GJ47C

R7215 1/16GJ47C

R7216 1/16GJ47C

R7217 1/16GJ 100C

R7218 1/16GJ 8.2KC

R7219 1/16GJ 120KC

R7220 1/16GJ 100KC

R7221 1/16 GJ47C

R7222 1/16 GJ 10KC

R7228 X

R7229 1/16GJ 47C

R7231 1/16GJ 1.5KC

R7232 1/16GJ 2.7KC

R7233 1/16GJ 220C

R7234 1/16GJ 220C

R7241 1/16GJ 100KC

R7242 1/16GJ 100KC

R7243 1/16GJ 10KC

R7244 X

R7245 1/16GJ 1MC

R7240 1/16GJ 4.7KC

R7241 1/16GJ 100KC

R7301 1/16GJ 3KC

R7302 1/16GJ 5.6KC

R7303 1/16 GJ56C

R7304 1/16GJ 560C

R7305 1/16GJ 240C

R7306 1/16GJ 240C

R7307 1/16GJ 470C

R7308 1/16GJ 470C

R7309 1/16GJ 680C

R7310 1/16GJ 1KC

R7311 1/16GJ 3KC

R7312 1/16GJ 5.6KC

R7313 1/16 GJ56C

R7314 1/16GJ 560C

R7315 1/16GJ 240C

R7316 1/16GJ 240C

R7317 1/16GJ 470C

R7318 1/16GJ 470C

R7319 1/16GJ 680C

R7320 1/16GJ 1KC

R7321 1/16GJ 3KC

R7322 1/16GJ 5.6KC

R7323 1/16 GJ56C

R7324 1/16GJ 560C

R7325 1/16GJ 240C

R7326 1/16GJ 240C

R7327 1/16GJ 470C

R7328 1/16GJ 470C

R7329 1/16GJ 680C

R7330 1/16GJ 1KC

R7331 1/16GJ 1KC

R7333 1/16 GJ56C

R7334 1/16 GJ56C

R7335 1/16 GJ56C

R7336 1/16 GJ56C

R7337 1/16 GJ56C

R7338 1/16 GJ56C

R7351 2SJ2.2

R7352 2SJ10

Q7201 MMST 3906P

Q7202 AJ

Q7301 AH

Q7302 AH

Q7303 AJ

Q7304 AJ

Q7305 AH

Q7306 AH

Q7307 AJ

Q7308 AJ

Q7309 AH

Q7310 AH

Q7311 AJ

Q7312 AJ

D7201 1SS355

D7202 1SV215G

D7351 1SS355

D7352 1SS355

D7353 DCG010

D7354 DCG010

L7201 L2A23R3KN

L7202 L2A23R3KN

L7203 L2A23R3KN

L7204 L2A23R3KN

L7206 L2A 100KN

L7207 L2A2 100KN

L7209 L2A23R3KN

L7210 L2A23R3KN

L7211 EZ0070XXA

L7212 EZ0070XXA

L7213 EZ0070XXA

L7214 EZ0070XXA

L7301 L2A2100KN

L7351 L2A23R3KN

L7352 Z20103---

L7353 Z20103---

L7354 Z20103---

L7355 Z20103---

T7201 L14B 1600N

TP-1 2.7Vdc+/-0.1 ADJ

ASSY,PWB,HARMONICS-F7HA(1AA0B10E5170A)
PWB,HARMONICS-F7HA (1AA4B10E2220A)

LIVE MAINS AREA

K169B J10KV020N

L1691 L26B1900N

TO:S/POW K16B

Part No. 1AA6P2P0955-- F7YLV (SHEET 3/9)

ASSY,PWB.FRONT-F7HL(1AA0B10E473BC)
PWB.FRONT-F7HA (1AA4B10E1880C)

ASSY,PWB,3L-YC F7HL (1AA0B10E478A0)
PWB,3L-YC F7HL (1AA4B10E1890A)

ASSY,PWB,SENSOR-F7HL(1AA0B10E5170B)
PWB,SENSOR-F7HL (1AA4B10E2220B)

SENSOR

FRONT

3L Y/C

LIST OF REPLACEABLE TRANSISTORS

(2SA933S TYPE)

	14TH CODE	2SA933S	2SA1015	2SA564A
AB	7T200181	R	Y,GR	R
AC	7T200182	Q,R	O,Y,GR	Q,R

(2SA1037K CHIP TYPE)

	14TH CODE	2SA1179	2SA1037
AJ	7T200221	M6,M7	R,S

(2SC1740S TYPE)

	14TH CODE	2SC1740S	2SC945A	2SC1815
AD	7T200183	Q,R,S	QA,PA	Y,GR
AE	7QT00202	Q,R,S	RA,QA,PA	O,Y,GR

(2SC2412K CHIP TYPE)

	14TH CODE	2SC2812	2SC2412K
AH	7T200220	L6,L7	R,S

(DIODE)

	14TH CODE	
P	7DD00021	DD1S2076A----N,DD1S2471-----N,DDXAAED0434--
R	7DD00019	DD1S2076----N,DD1S2473-----N,DDDS442X----N DDXAAED0434--
AA	7DD00192	DD1S2076----N,DD1S2473-----N,DDDS442X----N DDXAAED0434--,DD1SS133----N

99,08,25

ASSY,PWB,AV SW-F7HL/YL(1AA0B10E473AB)
PWB,AV SW-F7HA(1AA4B10E1880B)

TO FRONT K19C <P3>

TO TER K12EA

K12C J10AR050N

K12E J10EQ080N

IC1181 NJM2284MP

IC1201 MM1313BD

K12A J10EU200N

K12B J10EU250N

TO MAIN K8A <P1>

TO MAIN K8B <P1>

TO:AV-SW K12E

TO CRT K7F

K10E J10EQ080N

K10G J10EA020N

K10D J11KA151N

K10C J11KA151N

TO:MAIN K8D <P1>

TO:MAIN K8C <P1>

<SC-3> K1003 J11B2460N

<SC-2> K1002 J11B2460N

<SC-1> K1001 J11B2460N

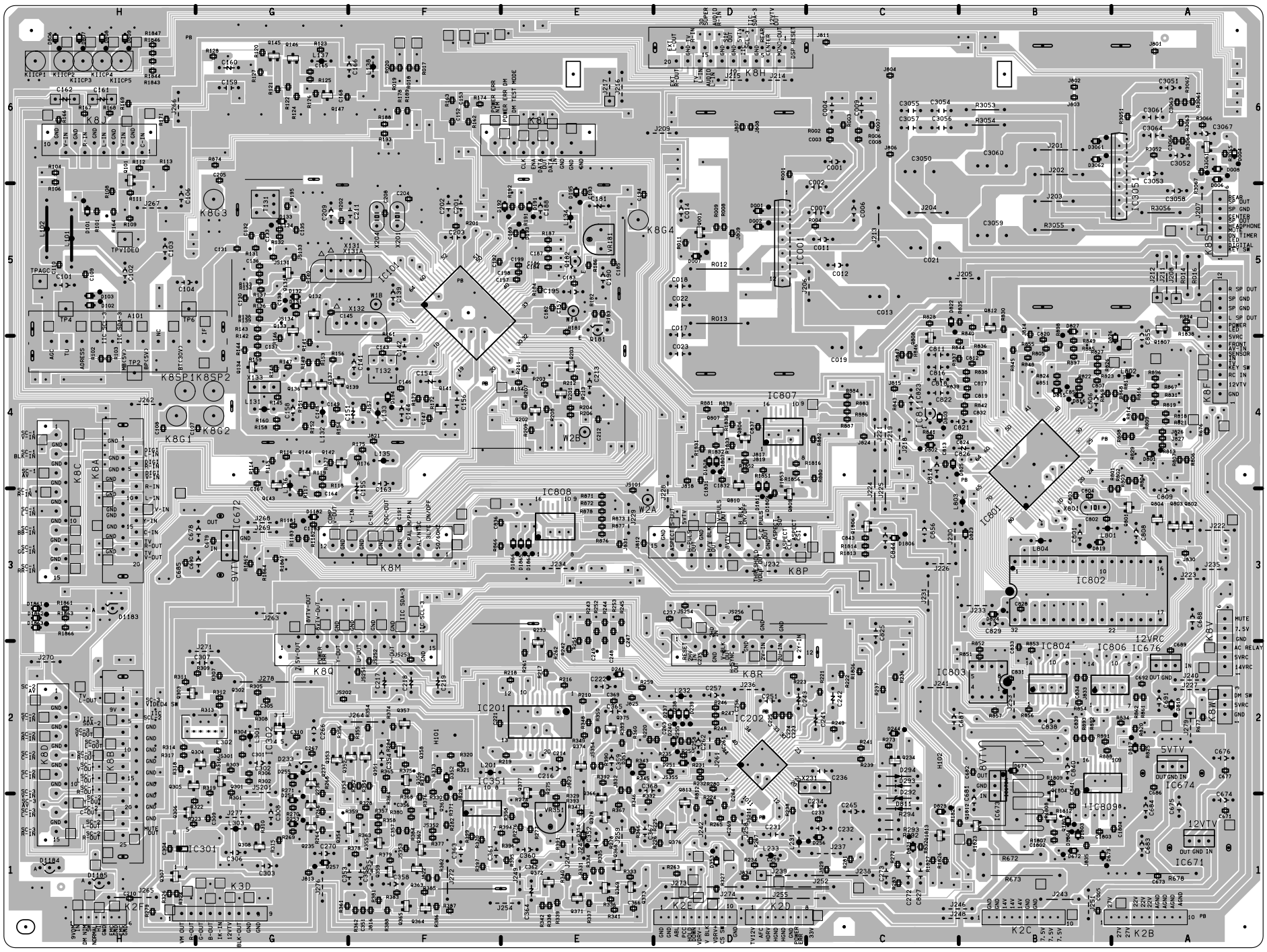
K10EA J11EG080N

K12EA J11EG080N

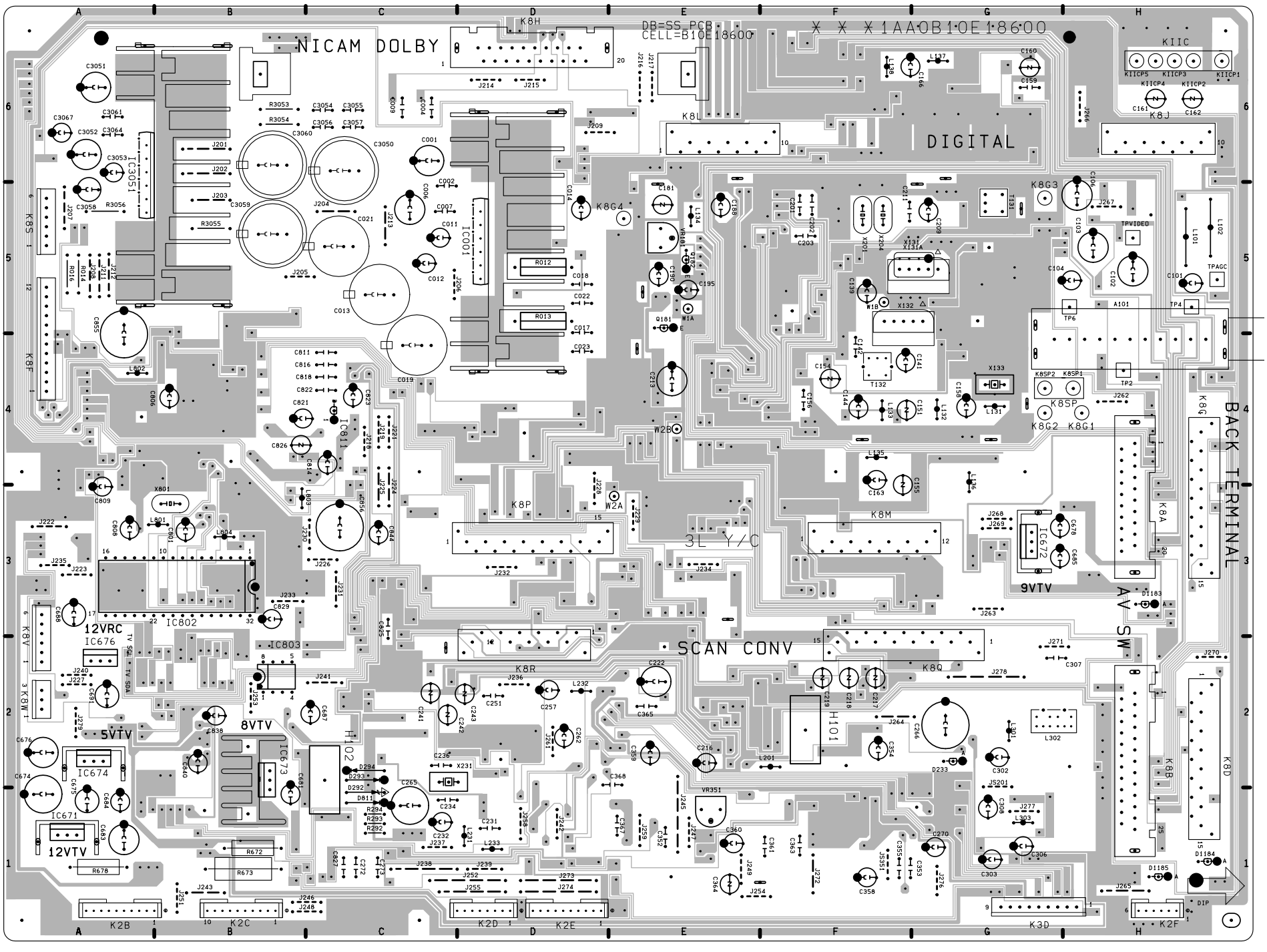
ASSY,PWB,TER-F7HA(1AA0B10E4730D)
PWB,TER-F7HA (1AA4B10E1880D)

ASSY,PWB,BACK TERMINAL-F7HA/HL/YL(1AA0B10E4730A)
PWB,BACK TERMINAL-F7HA(1AA4B10E1880A)

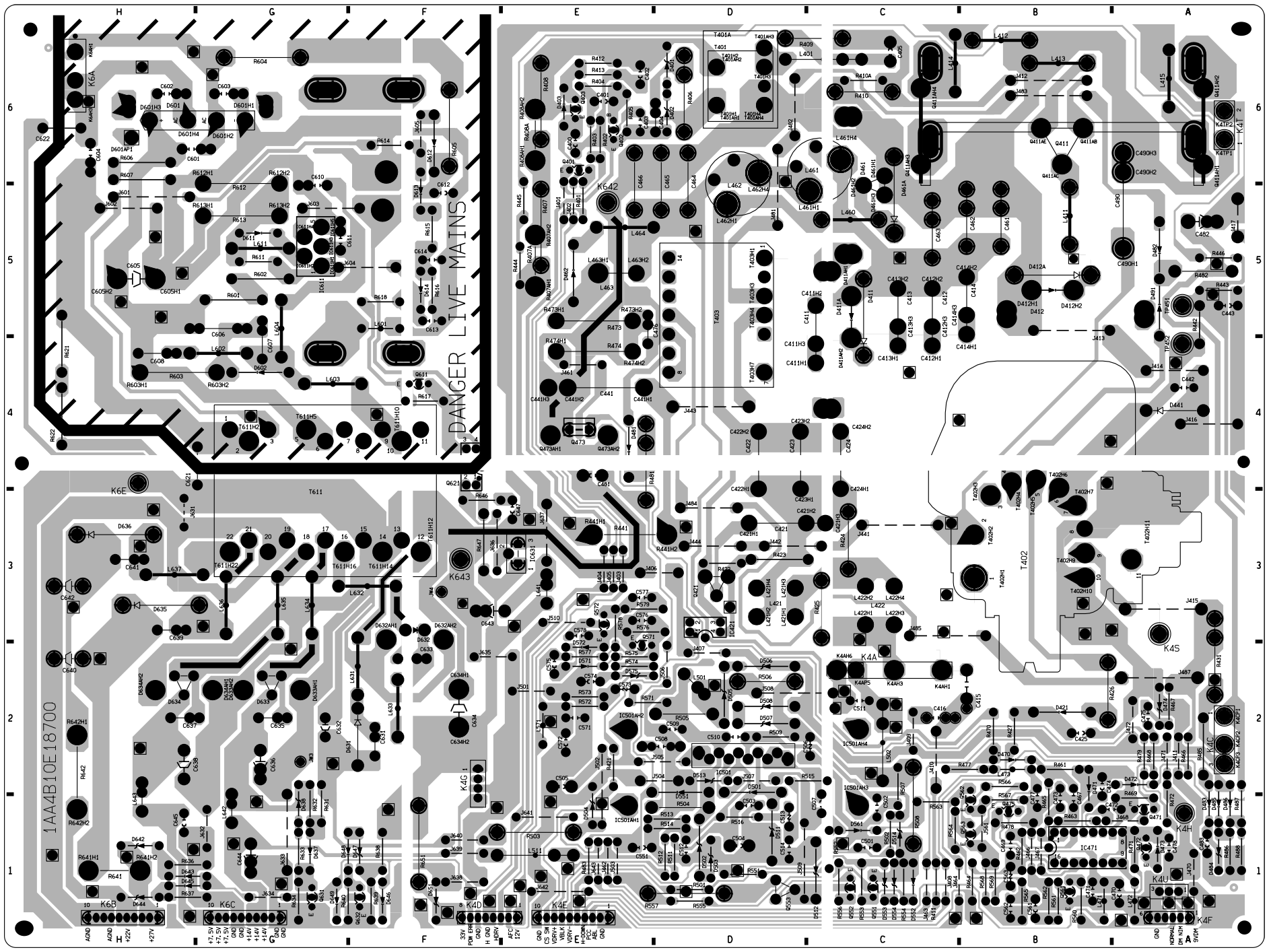
MAIN BOARD CIRCUIT SIDE



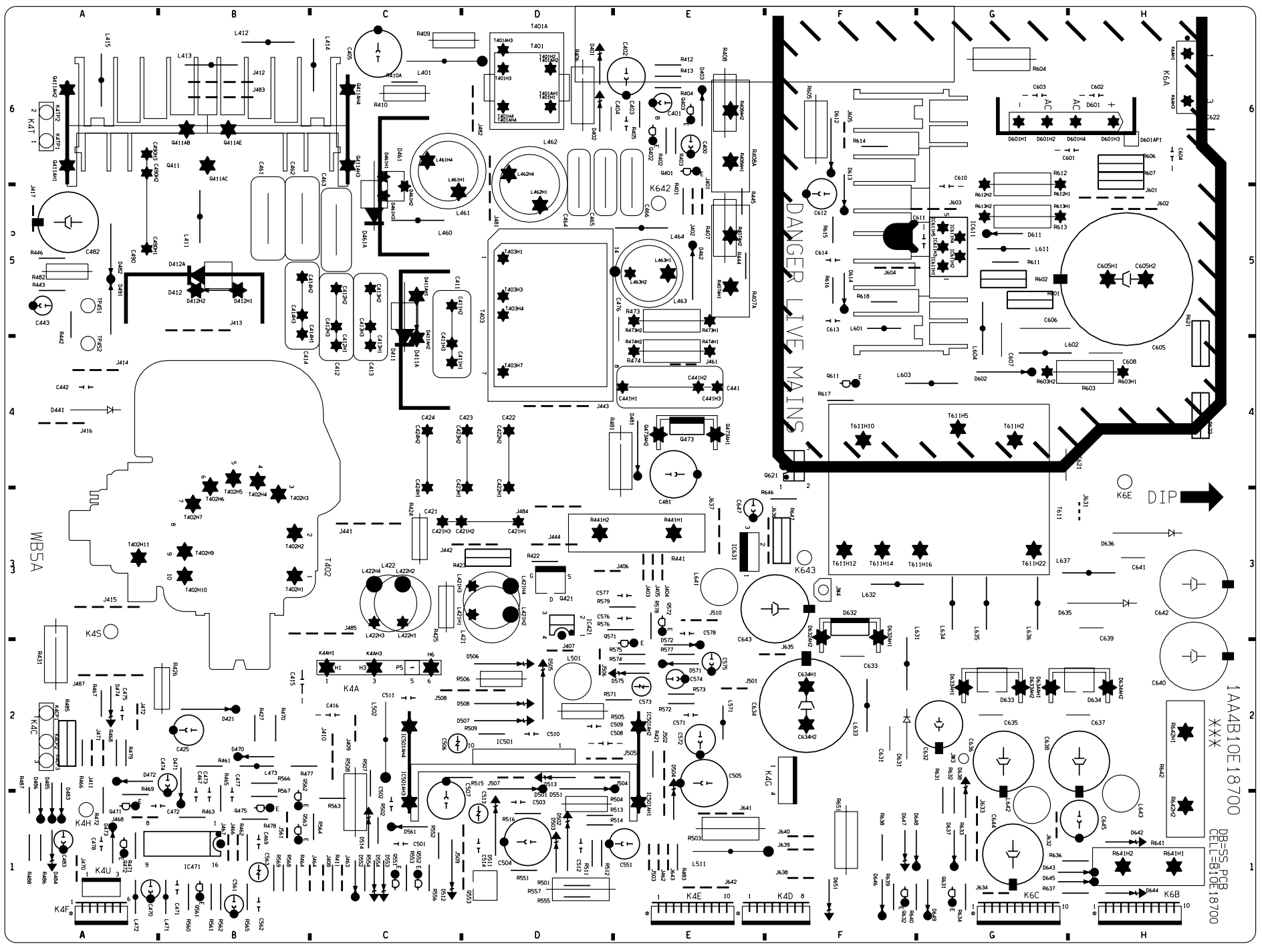
MAIN BOARD COMPONENT SIDE



POWER DEFLECTION BOARD CIRCUIT SIDE

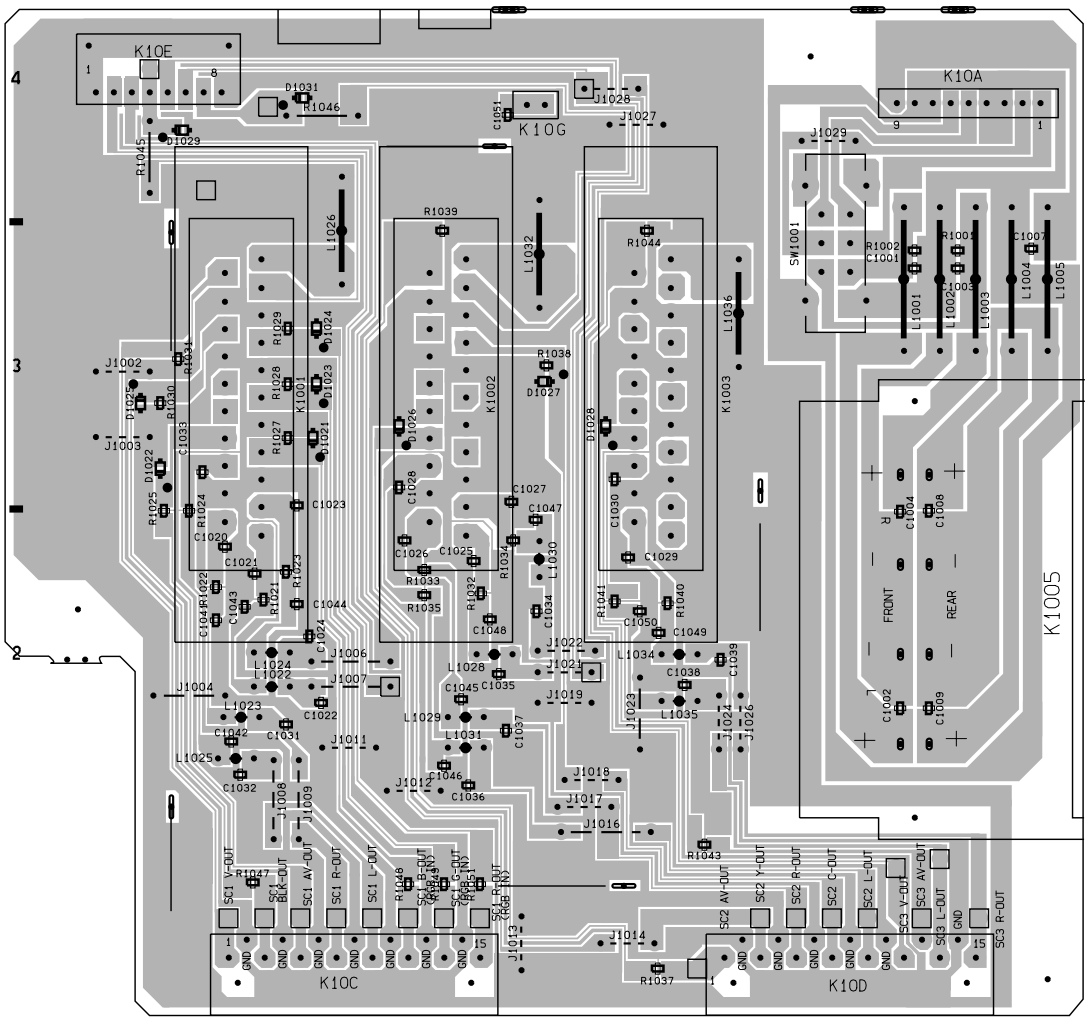


POWER DEFLECTION BOARD COMPONENT SIDE

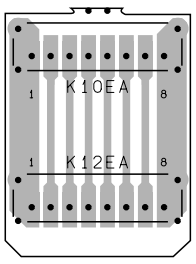


Part No. 1AA6P2P0955-- F7YLV (SHEET 5/9)

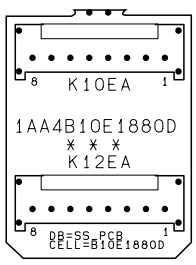
BACK TERMINAL BOARD CIRCUIT SIDE



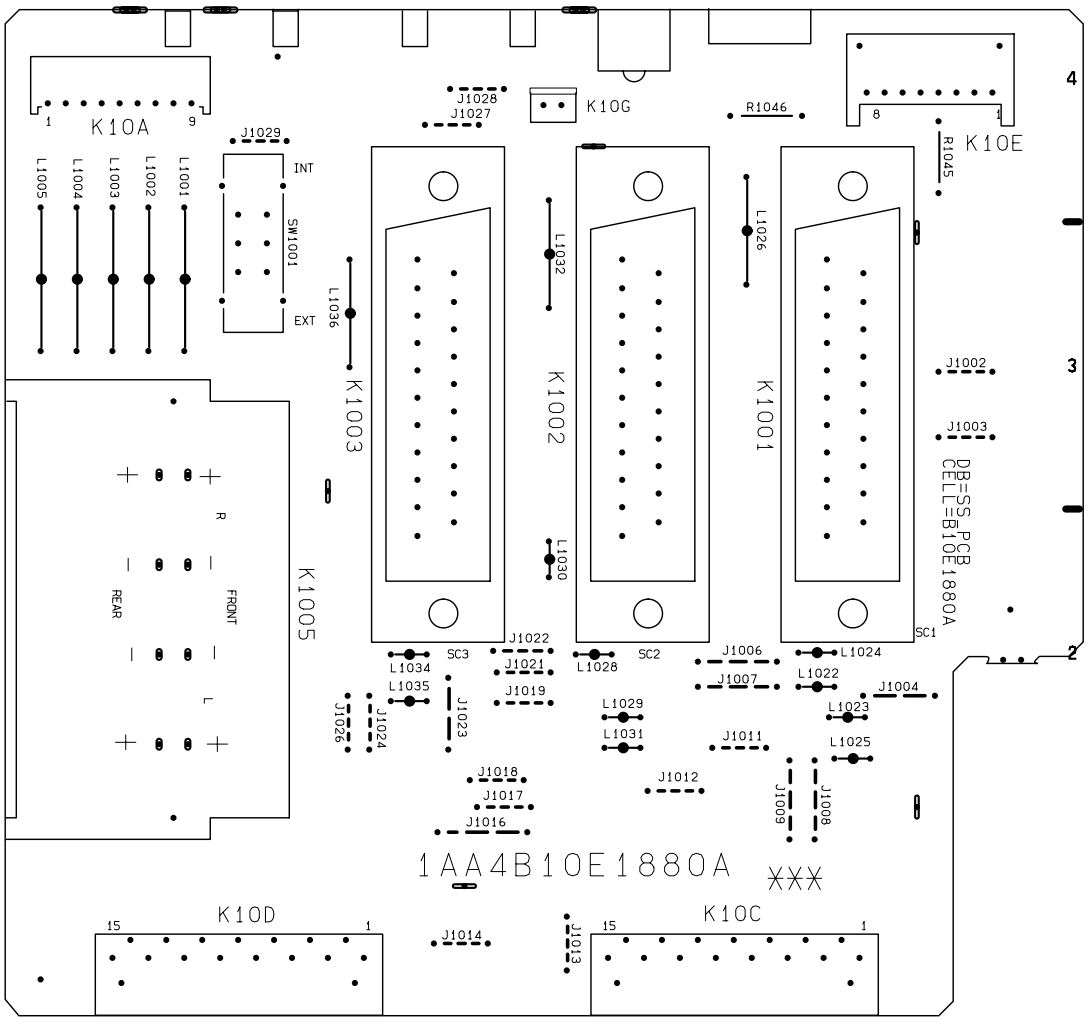
TERMINAL BOARD CIRCUIT SIDE



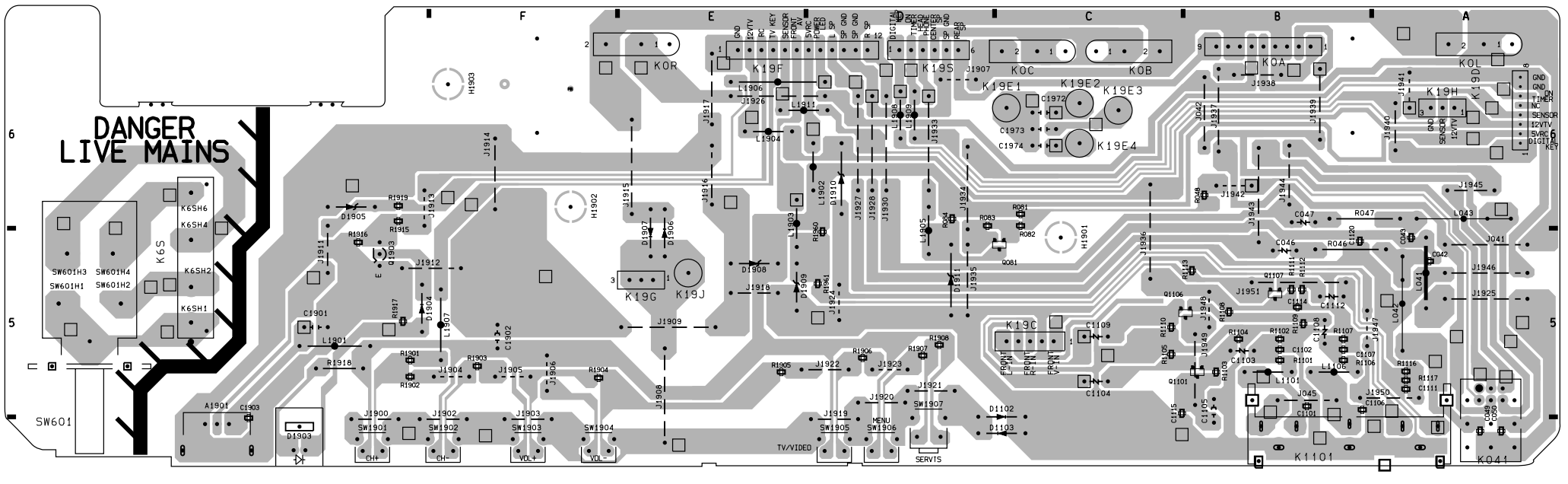
TERMINAL BOARD COMPONENT SIDE



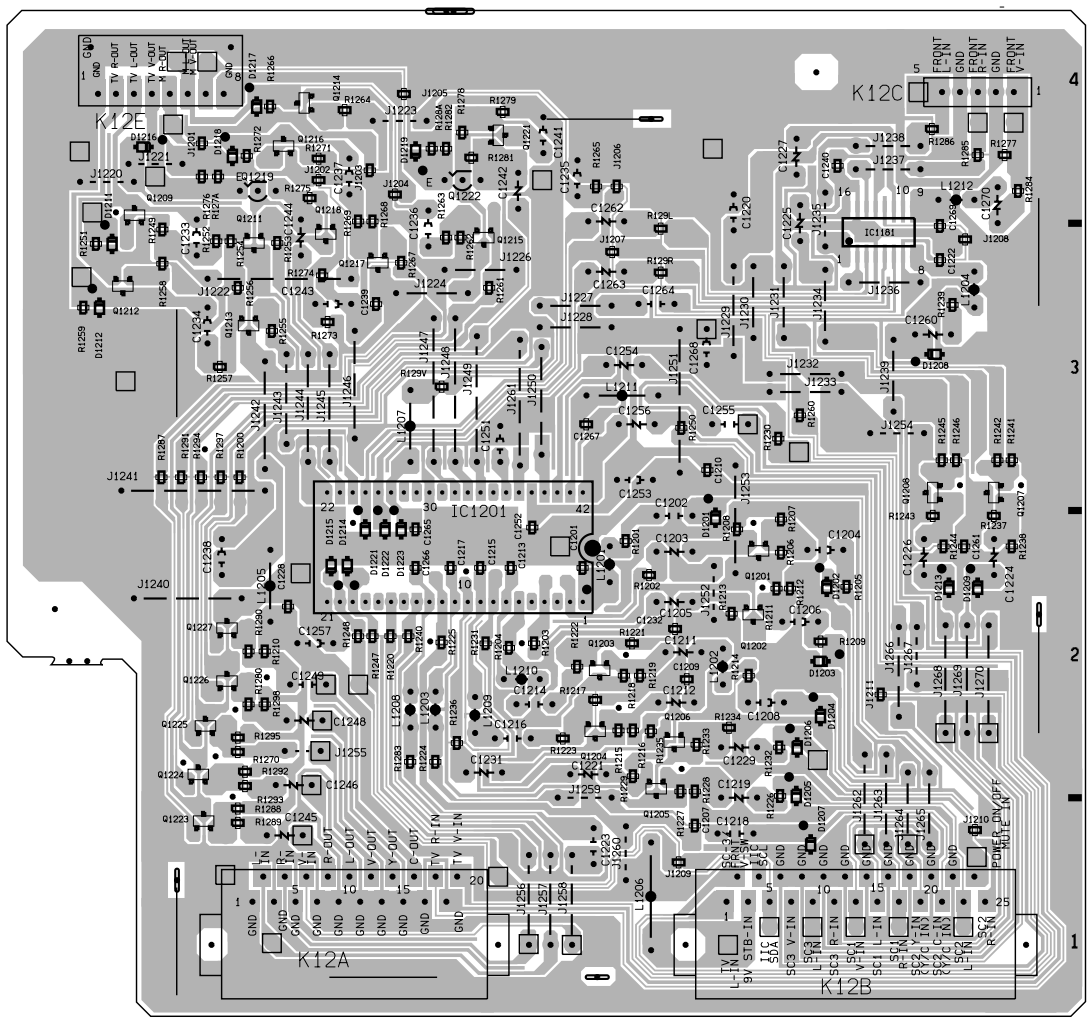
BACK TERMINAL BOARD COMPONENT SIDE



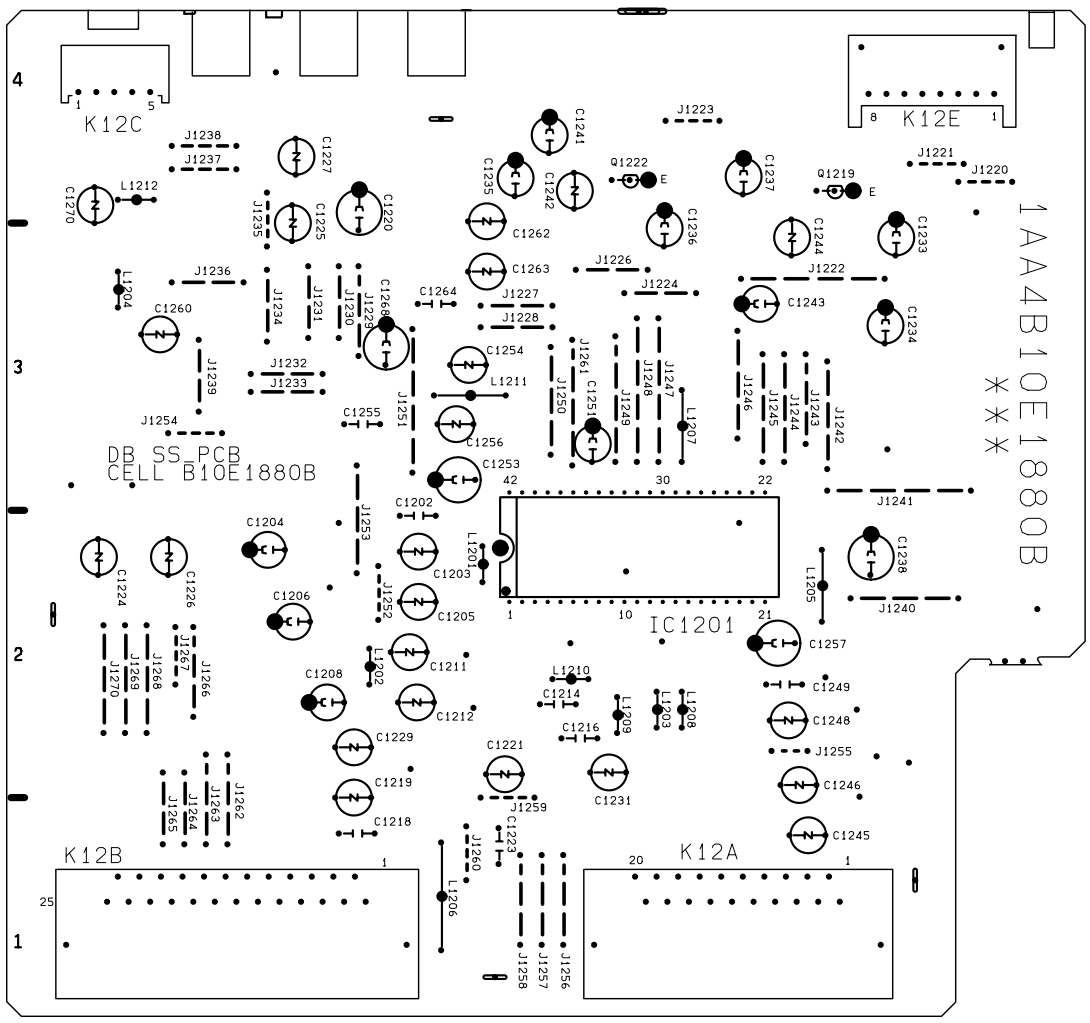
FRONT BOARD CIRCUIT SIDE



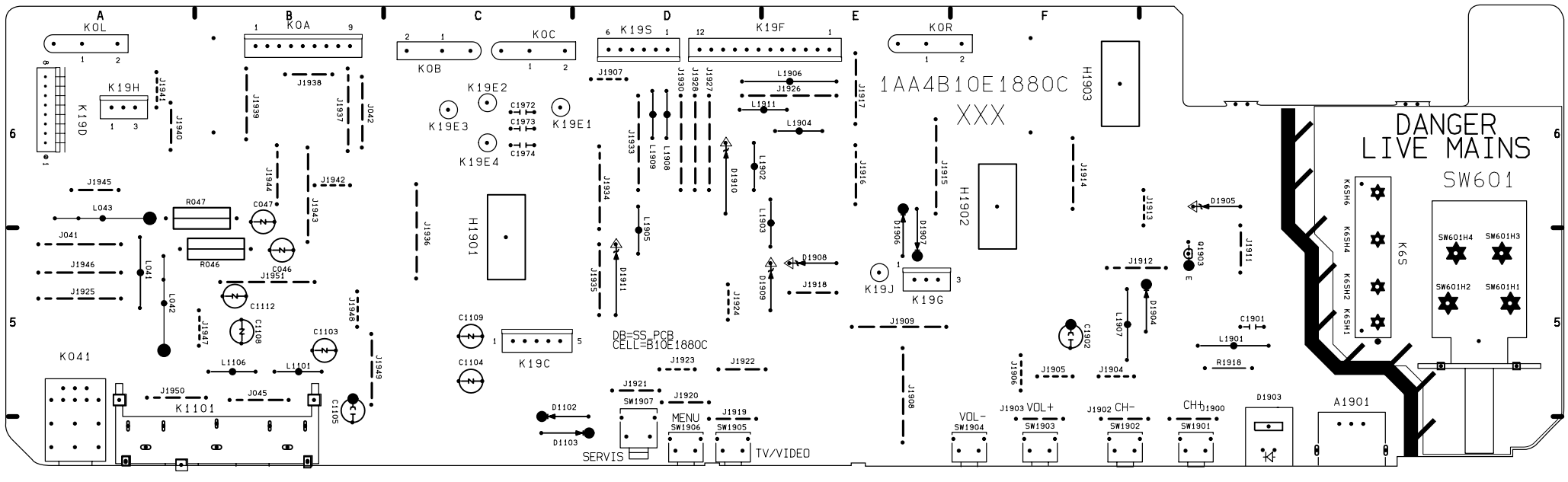
AV SW BOARD CIRCUIT SIDE



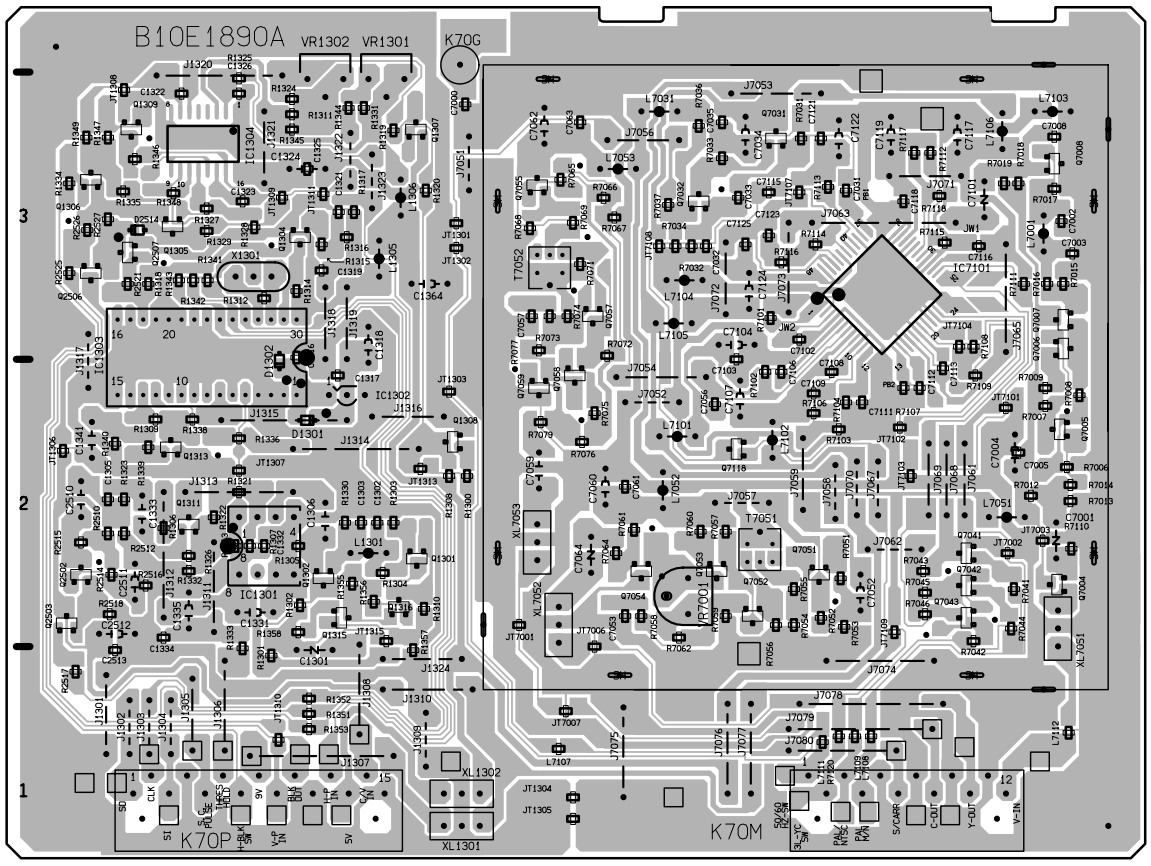
AV SW BOARD COMPONENT SIDE



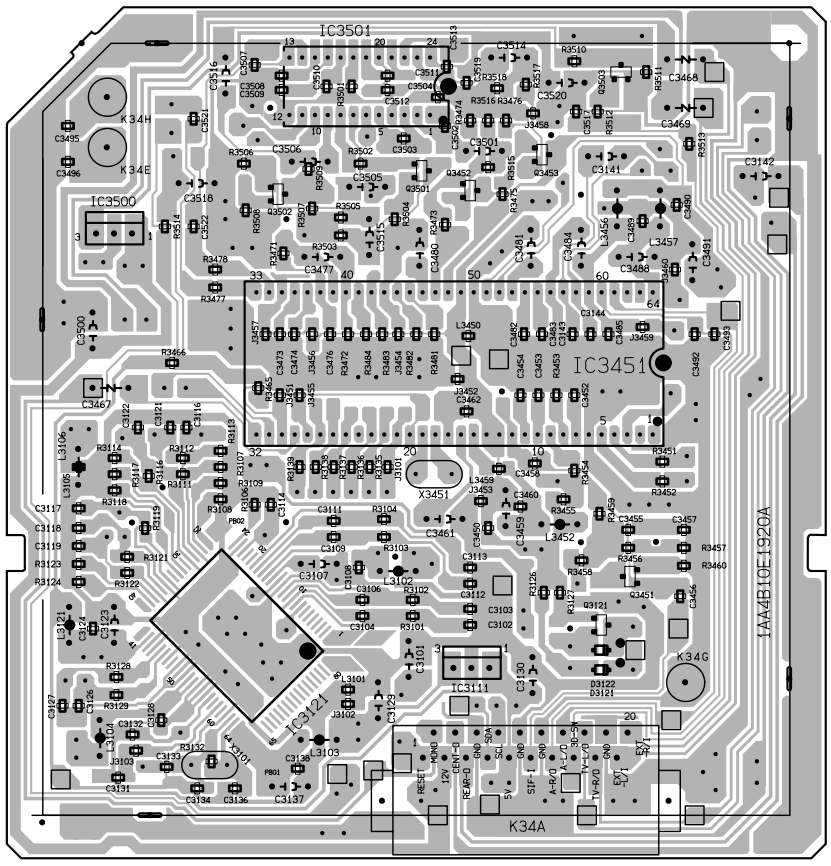
FRONT BOARD COMPONENT SIDE



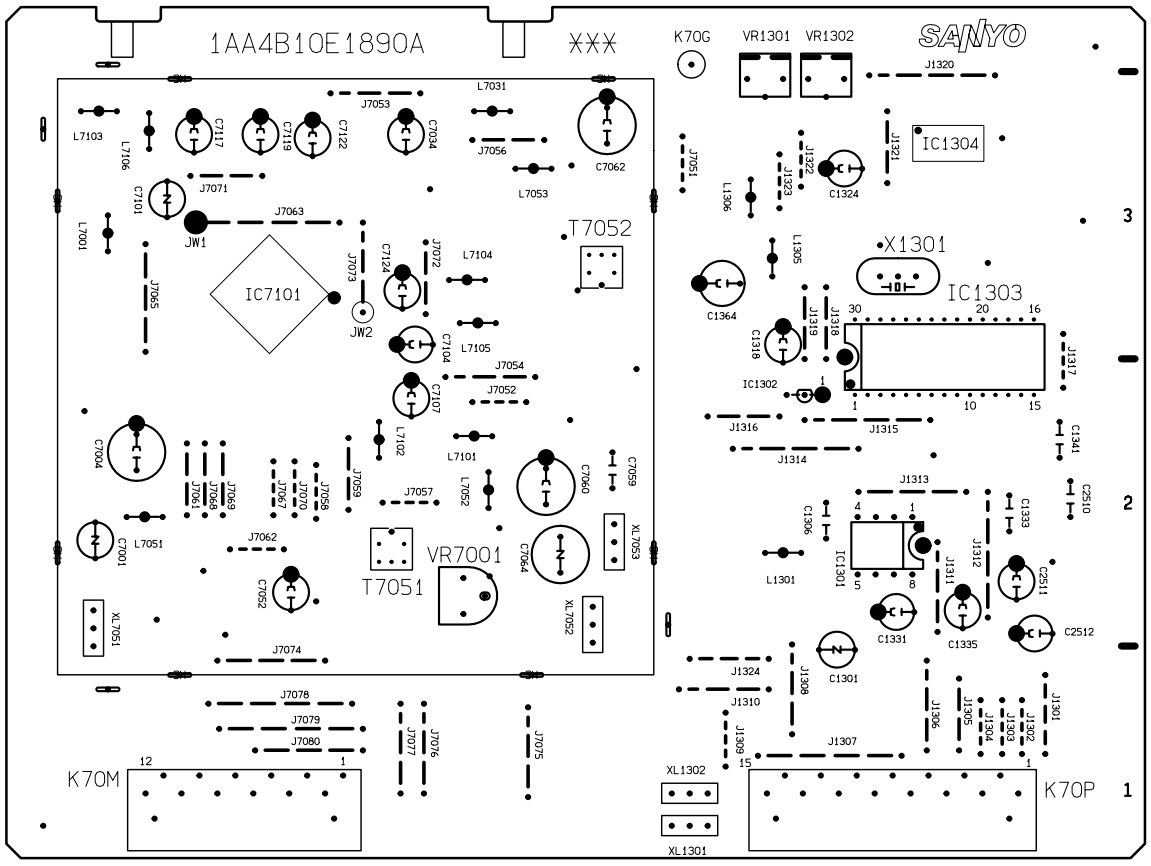
3L Y/C BOARD CIRCUIT SIDE



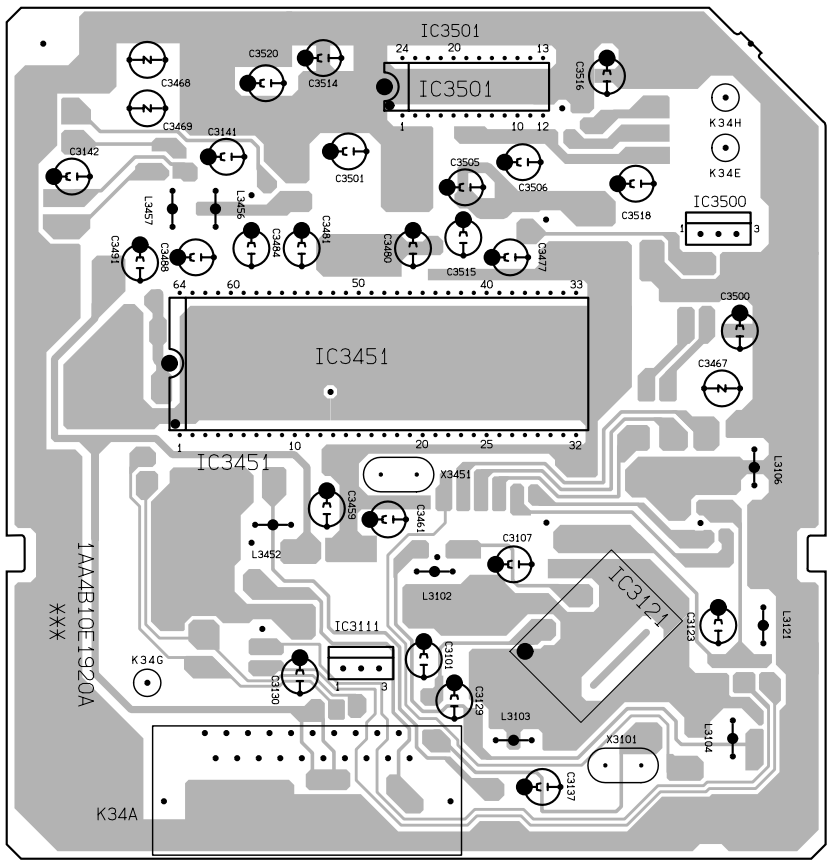
AUDIO BOARD CIRCUIT SIDE



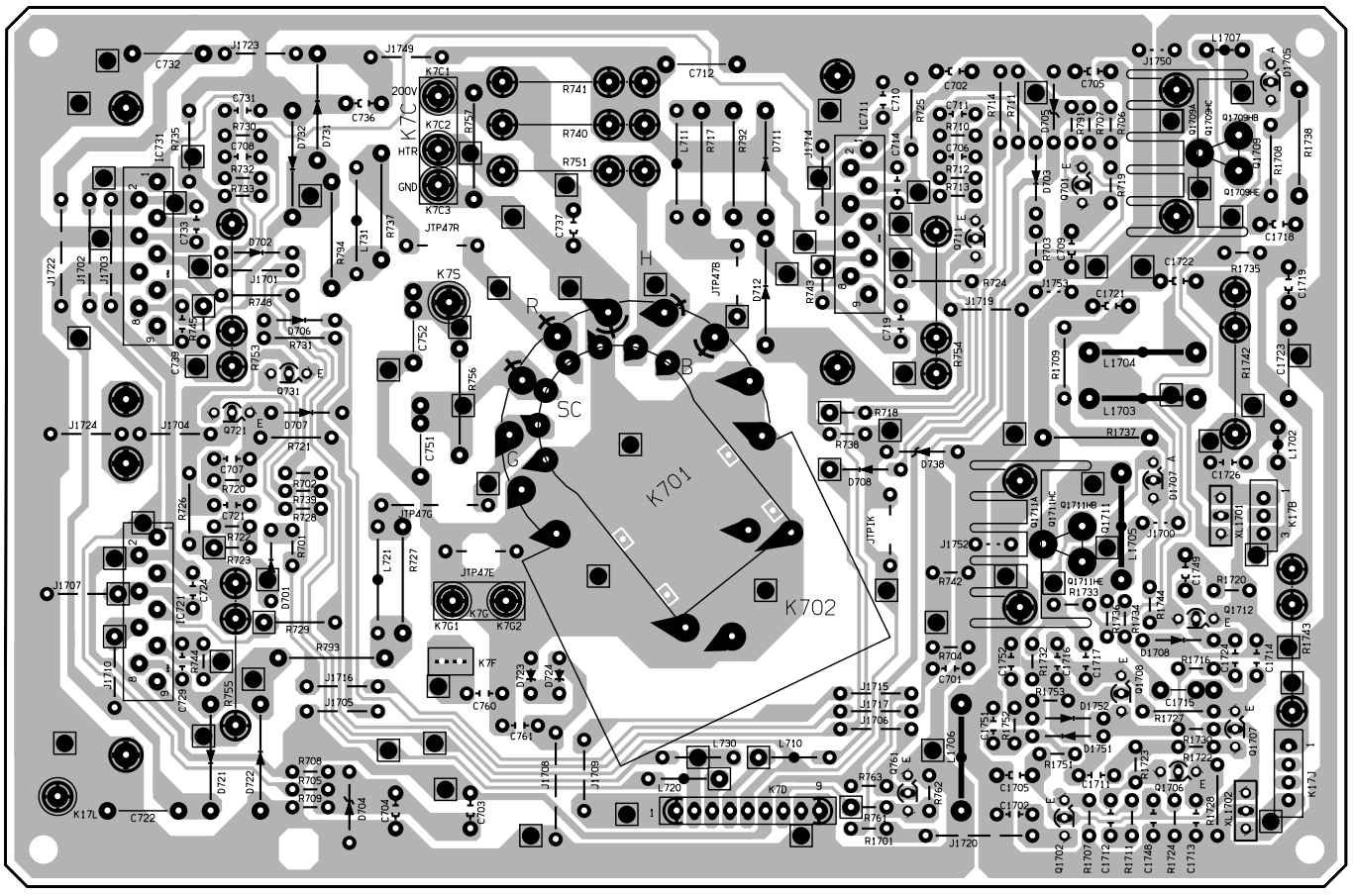
3L Y/C BOARD COMPONENT SIDE



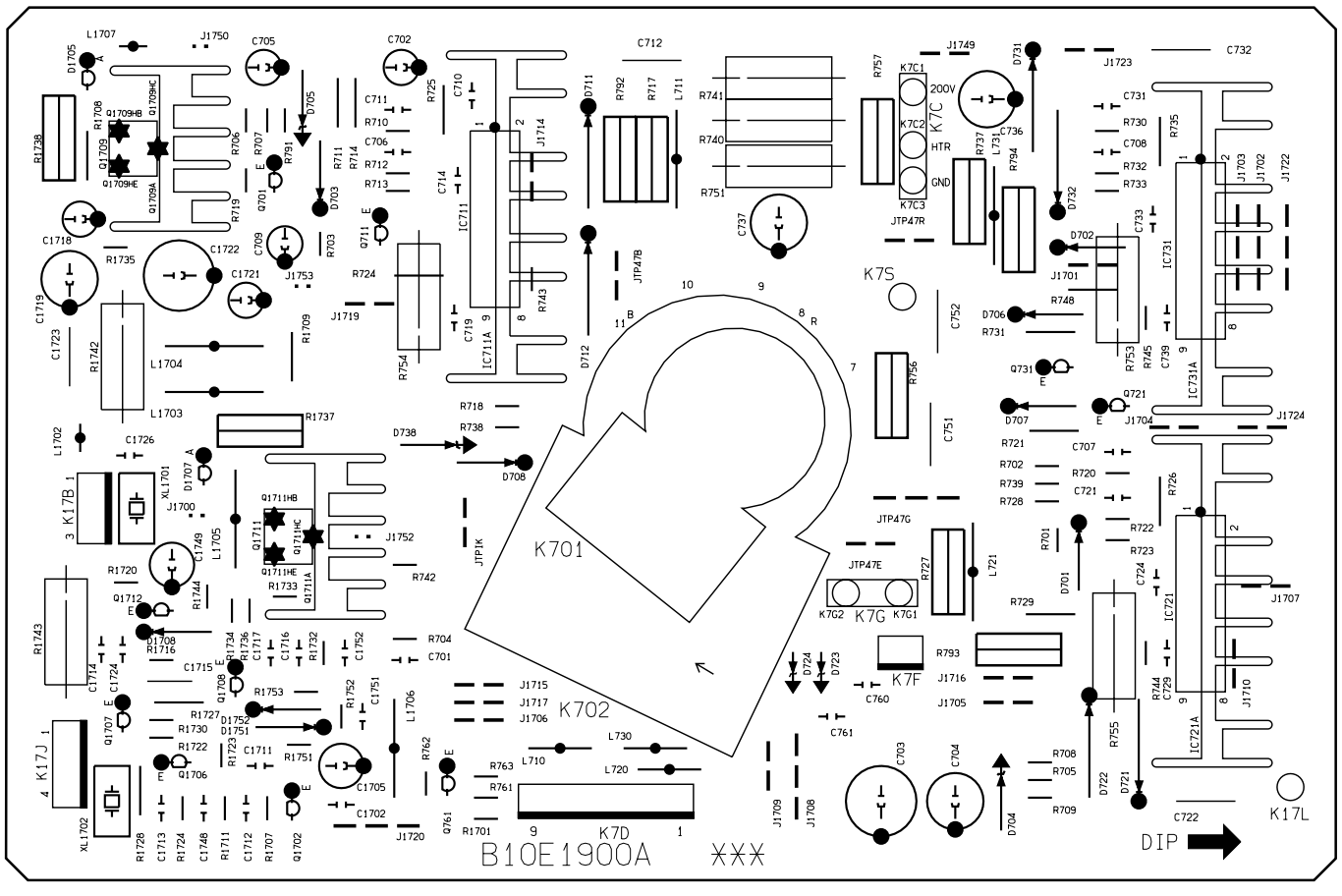
AUDIO BOARD COMPONENT SIDE



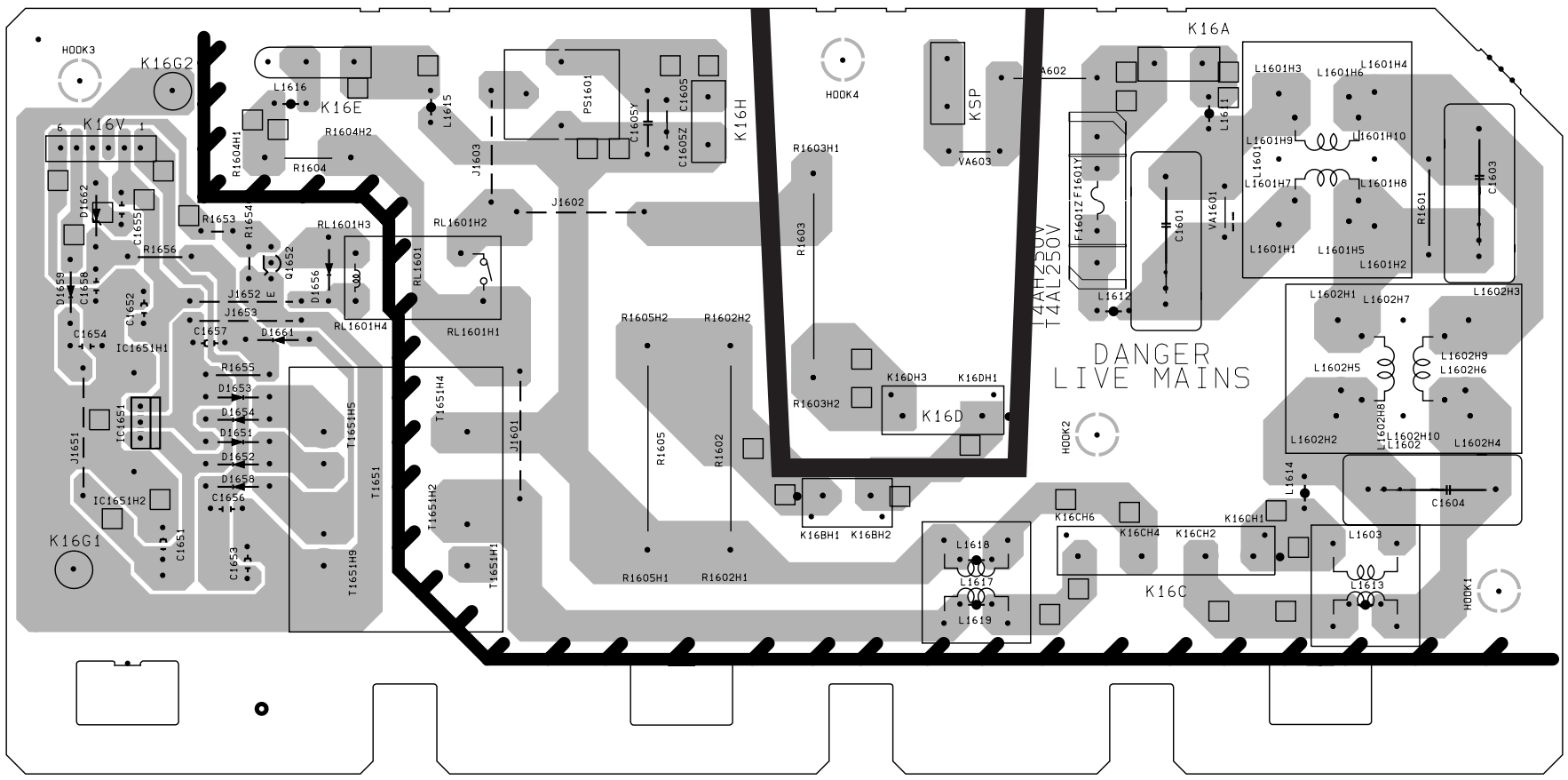
CRT BOARD CIRCUIT SIDE



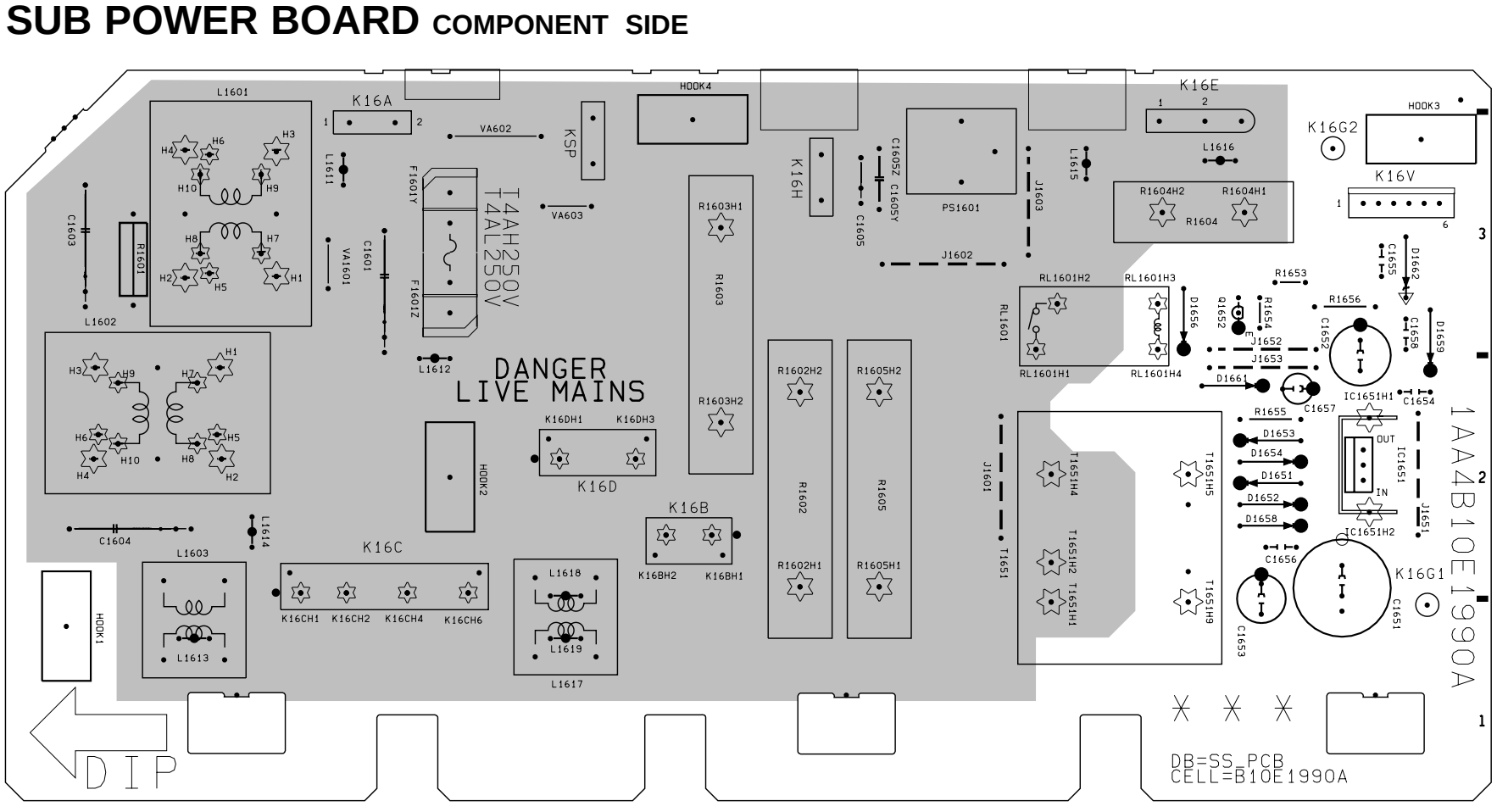
CRT BOARD COMPONENT SIDE



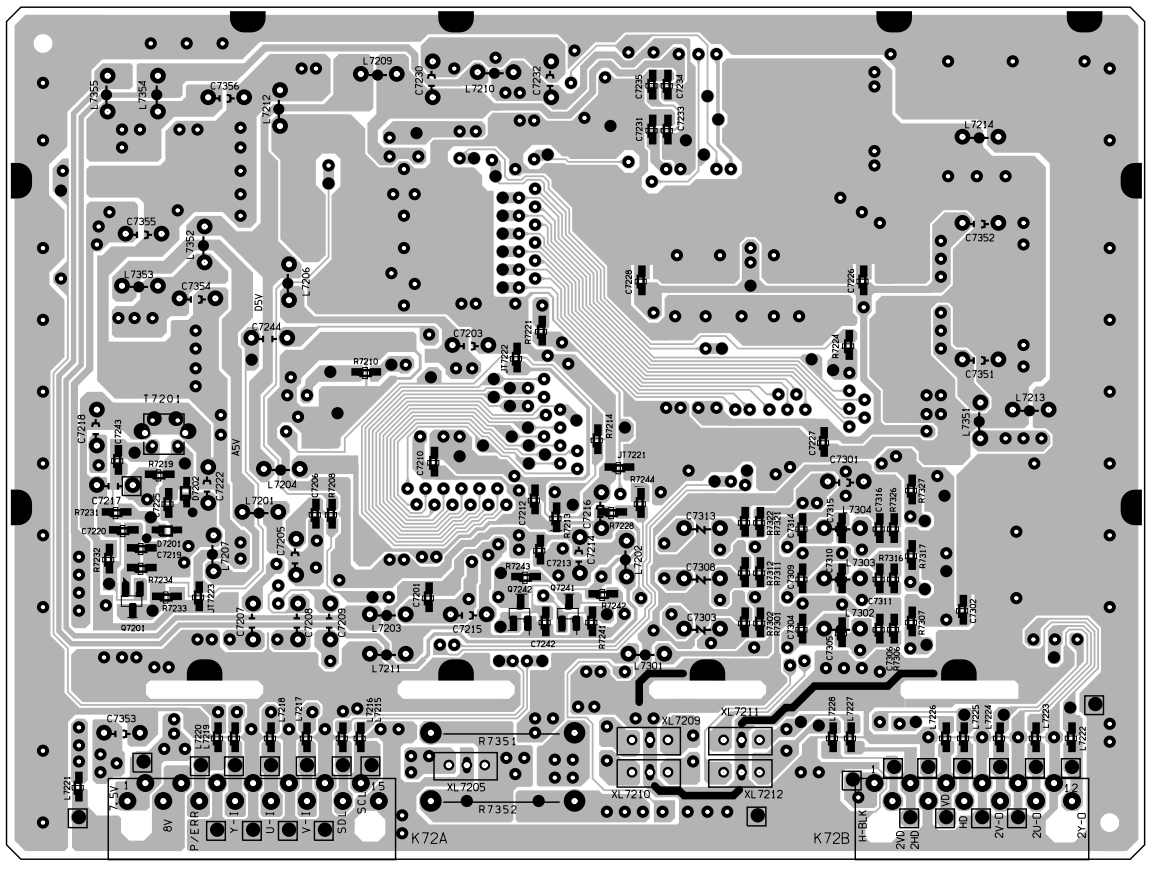
SUB POWER BOARD CIRCUIT SIDE



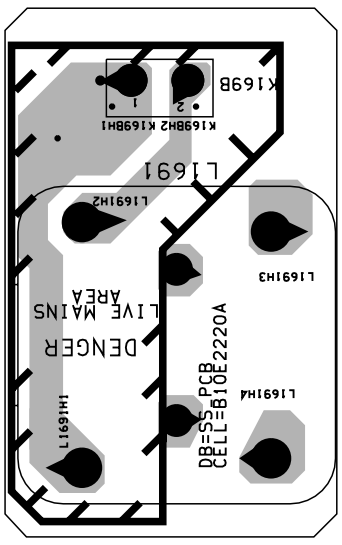
SUB POWER BOARD COMPONENT SIDE



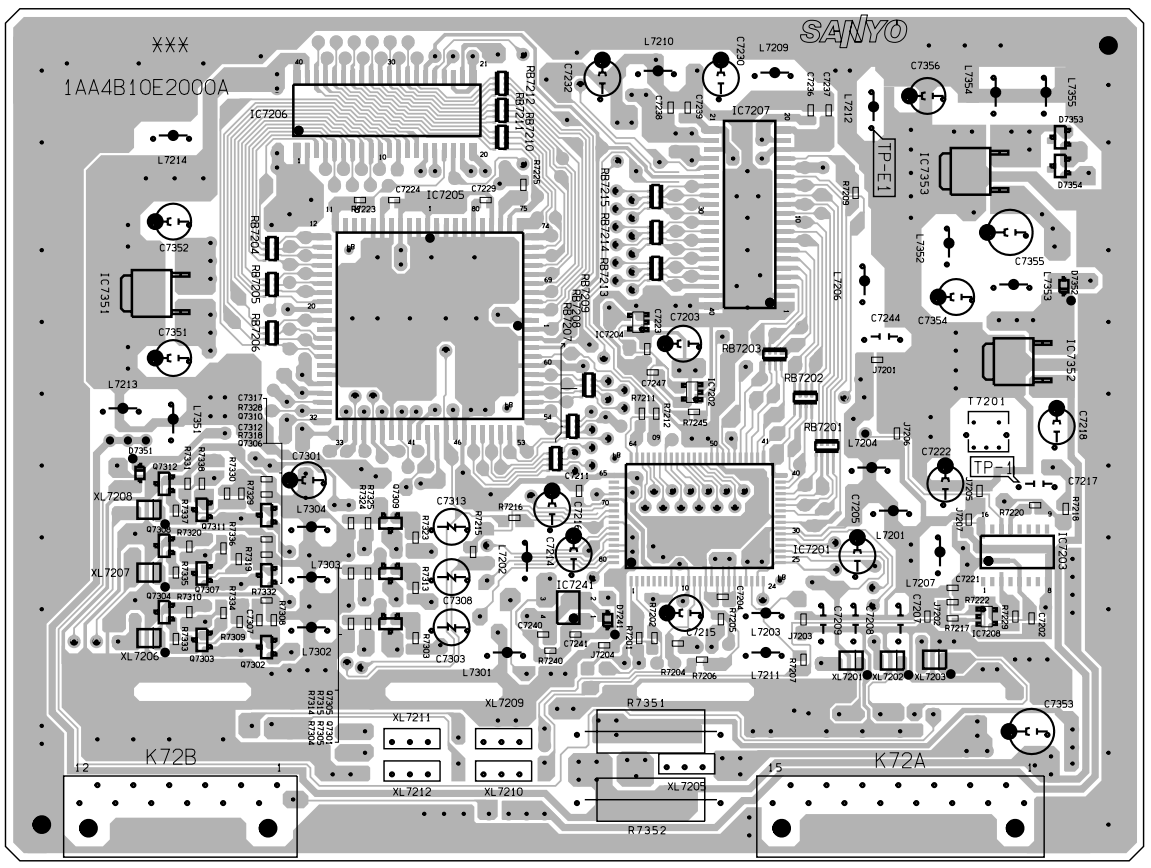
SCAN CONVERTER BOARD CIRCUIT SIDE



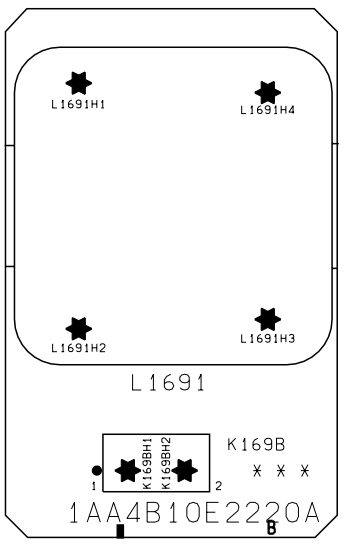
HAR SENSOR BOARD CIRCUIT SIDE



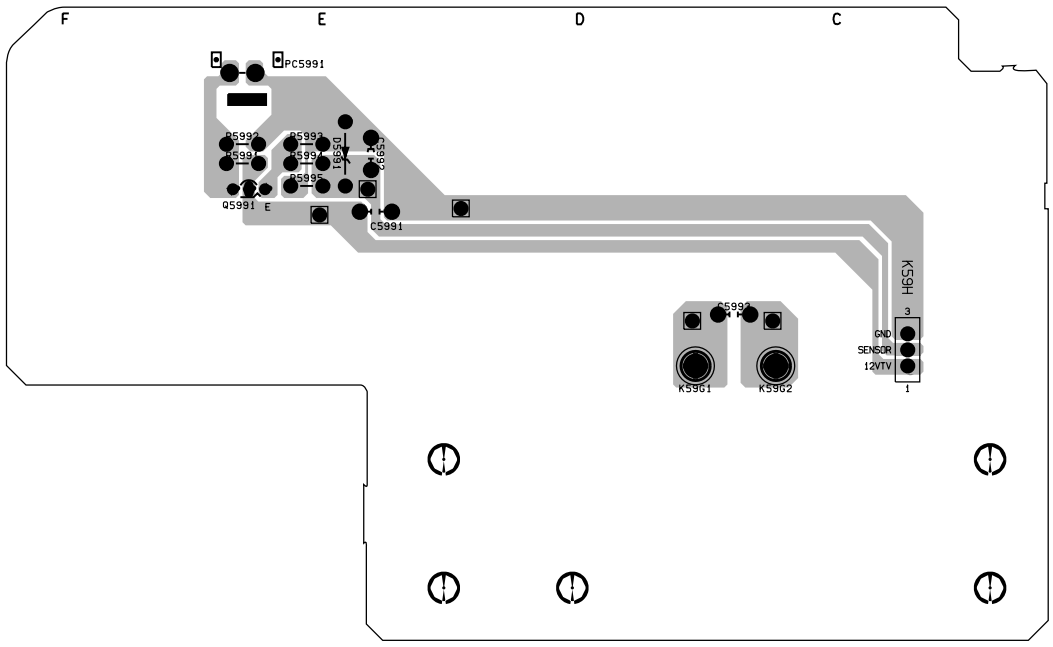
SCAN CONVERTER BOARD COMPONENT SIDE



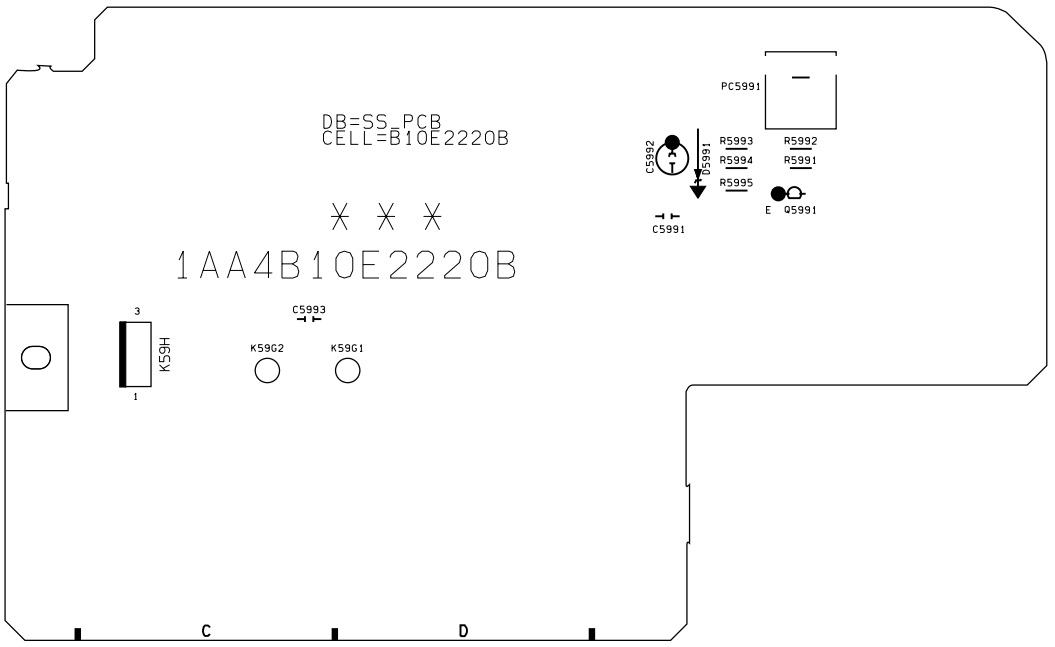
HAR SENSOR BOARD COMPONENT SIDE



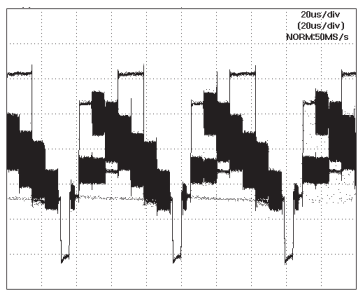
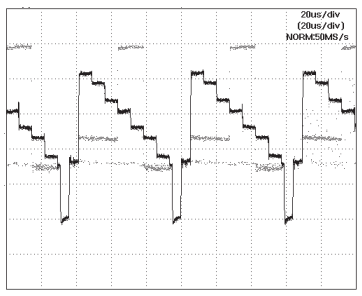
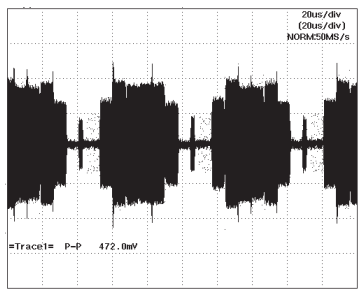
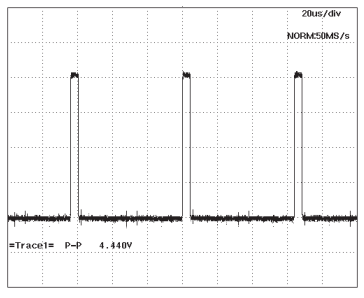
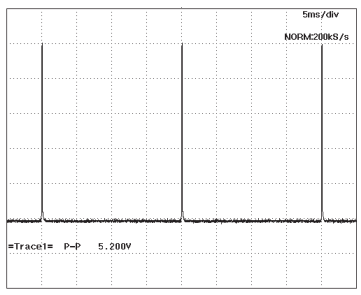
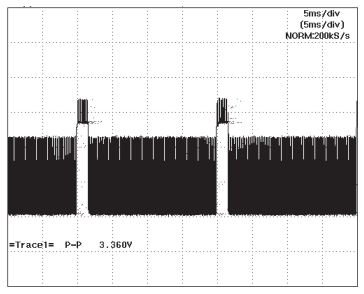
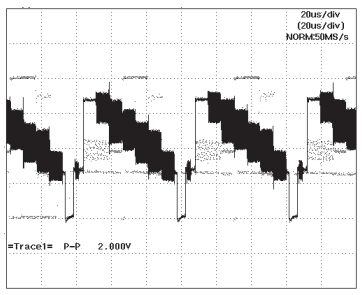
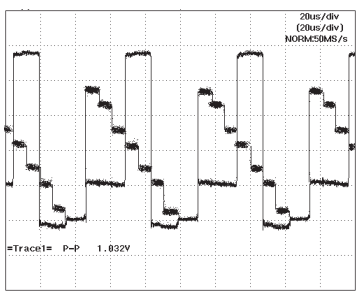
SENSOR BOARD CIRCUIT SIDE

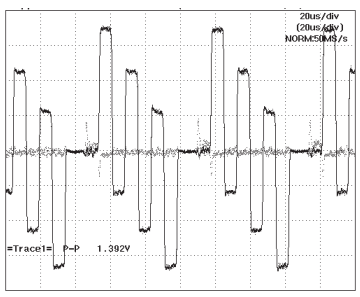
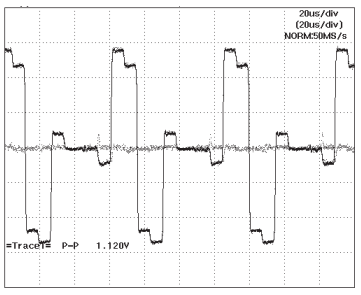
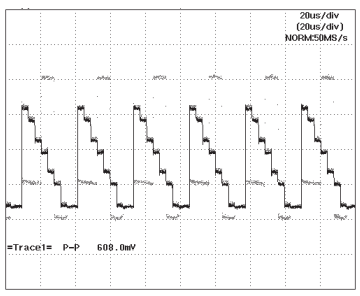
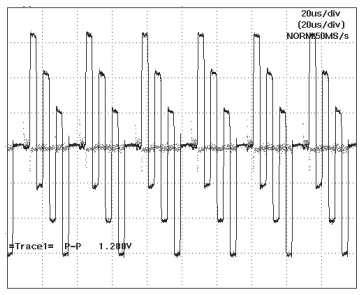
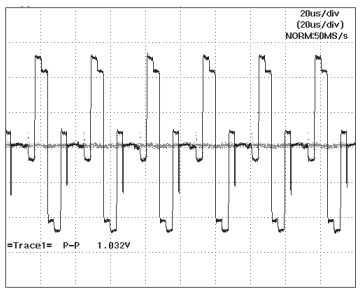
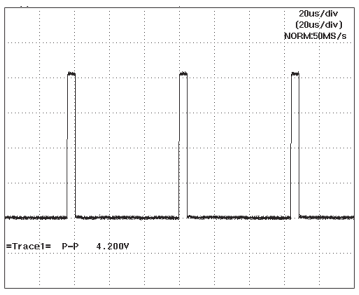
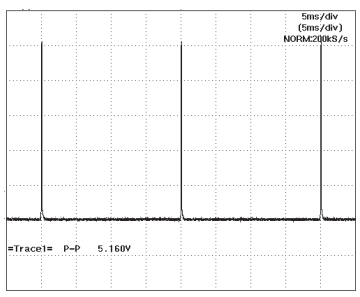
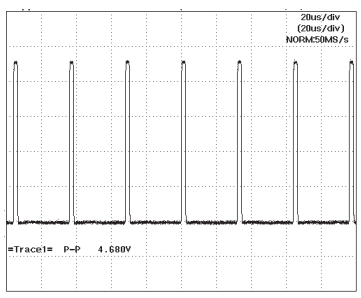


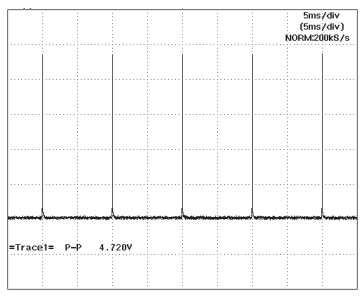
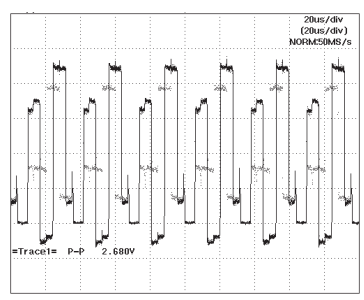
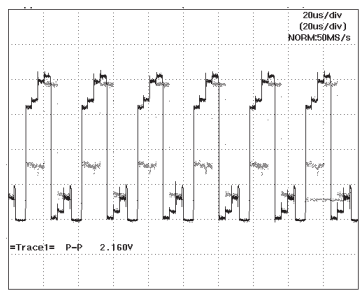
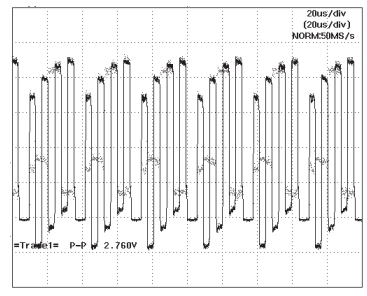
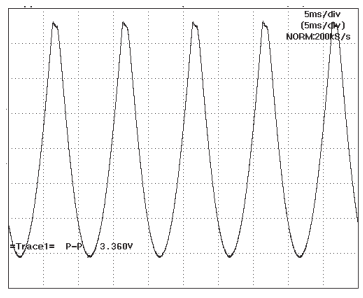
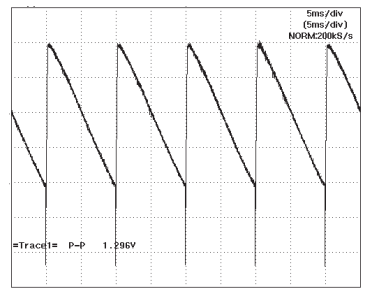
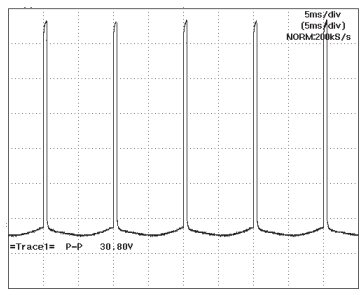
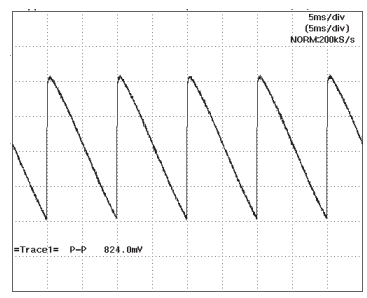
SENSOR BOARD COMPONENT SIDE

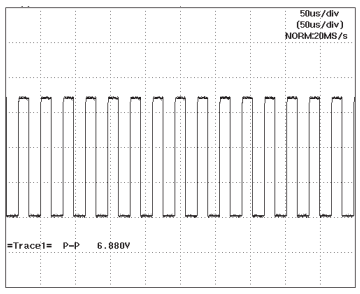
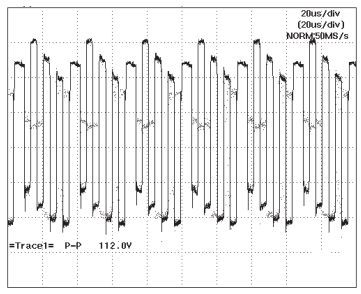
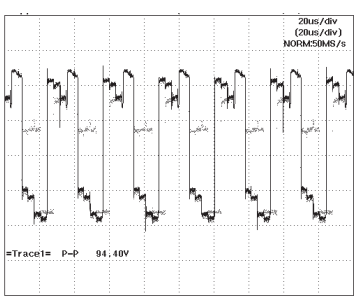
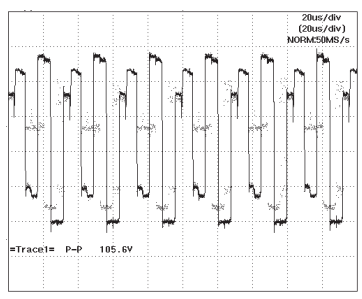
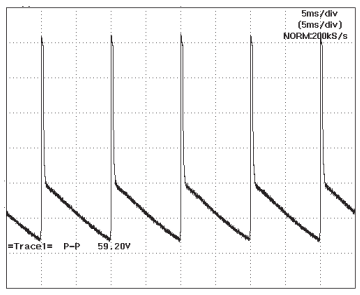
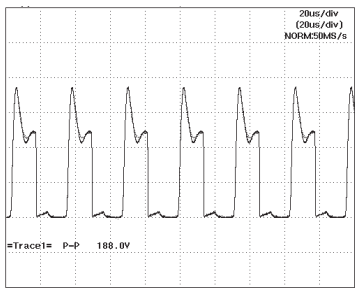


WAVEFORMS

(1) TPVIDEO, K8M-12 Composite Video		(2) K8M-10 Y-input	
(3) K8M-8 Chroma-input		(4) K8P-12 H-sync	
(5) K8P-9 V-sync		(6) K8P-5 S.C.-pulse	
(7) K8A-12 Video-input		(8) K8Q--7 Y-output	

(9) K8Q-9 U(B-Y)-output		(10) K8Q-11 V(R-Y)-output	
(11) K8R-12 2Y-input		(12) K8R-10 2U(B-Y)-input	
(13) K8R-8 2V(R-Y)-input		(14) K8R-6 H-Sync output	
(15) K8R-5 V-Sync output		(16) K8R-3 2HD-input	

(17) K8R-2 2VD-input		(18) K3D-2 R-output	
(19) K3D-3 G-output		(20) K3D-4 B-output	
(21) K2E-4 Pcc-output		(22) K2E-6 Vert-drive (-)	
(23) K2E-7 Vert-Blanking output		(24) K2E-8 Vert-drive (-)	

(25) K2D-3 H-drive output		(26) IC711-8 Blue-output	
(27) IC721-8 Green-output		(28) IC731-8 Red-output	
(29) IC501-3 Vert.-output		(30) Q402-C Horiz. Drive	

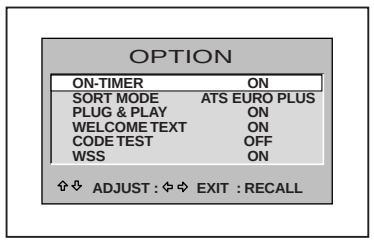
OPTION SETTING

[After replacing the Menory IC (IC803)]

The memory IC, IC803, stores the option data of TV set and service adjustments data for each circuit, therefore, when the memory IC is replaced, it should be performed following setting and “SERVICE ADJUSTMENT” on next page.

To enter to the Option Mode

+ Press and hold the **“RECALL”**button on the remote control and **“PROG.+”** button on the front panel of the TV. The option window will appear on the screen.



To set the option mode

+ Highlight the desired option item by using the **UP** or **DOWN**button .
+ To switch the option mode, use the **Volume - (LEFT)** or **Volume + (RIGHT)** button.
+ The data which is set in the option mode is stored into the memory IC automatically.

Following table shows the available option items and default setting mode.

Option Mode	Mode	Note
ON-TIMER	ON or OFF	Default “ON”
SORT MODE	ATS EURO PLUS or AUTO TUNE or AUTO TUNE/SORT	Depends destination
PLUG & PLAY	ON or OFF	Default “ON”
WELCOME TEXT	ON or OFF	Display meassage when first set up, default “ON”
CODE TEST	OFF or ON	For factory use, default “OFF”
WSS	ON or OFF	Wide Screen Signaling available, default “ON”

Exit from the Service Mode

+ Press the **RECALL** button.

SERVICE ADJUSTMENTS

Note: Some items of the service adjustments for this chassis are controlled by the CPU, IC801, and the adjustments are carried out by using the RC handset.

[After replacing the Menory IC (IC803)]

The memory IC, IC803, stores the service adjustments data for each circuit, therefore, when the memory IC is replaced, it should be performed “OPTION SETTING” on previous page and the following adjustments, refer to futher adjustment on page 14.

ADJUSTABLE SERVICE ADJUSTMENT

REGULAR

Item No.	OSD	Description
1	VC1	B/G VCO Adjustment
2	VC2	France-L/L’ VCO Adjustment
3	AGC	AGC Adjustment
4	SCR	Screen Adjustment
5	GRY	White Balance Adjustment
6	CUT	Cut-Off Drive Adjustment
7	CTR	Contrast Adjustment
8	OSD	OSD Positioning Adjustment

WIDE

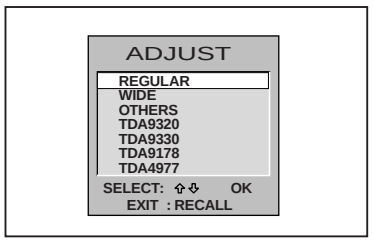
Item No.	OSD	Description
4	P V-WA	Vertical Size Adjustment
6	P V-L	Vertical Centre Adjustment
8	P H-P	Horizontal Centre Adjustment
9	P H-W	Horizontal Size Adjustment
11	P PCC	Pcc Adjustment
16	P TRP	Trapizoid Distortion Adjustment

IMPOTANT NOTICE

Do not attempt to adjust service adjustments not listed on the above otherwise it may cause loss of performance and product safety.

To enter to the Service Mode

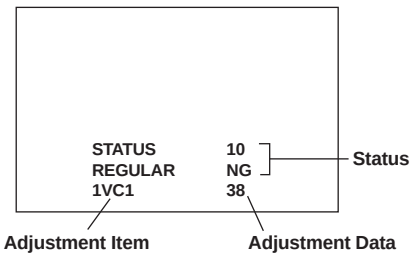
+ Press and hold the “**RECALL**” button on the remote control and then press the **“SERVICE switch”**inside of the door. The adjustment window will appear on the screen.



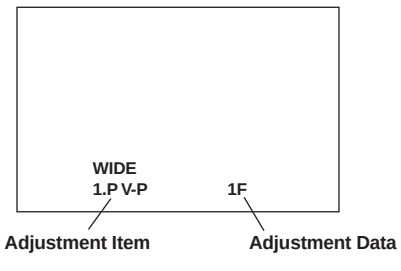
To select the mode and service item and change data value

+ Highlight the desired adjustment mode by using the **UP** or **DOWN**button and then press the **OK** button.
+ To select the adjustment item, use the **UP** or **DOWN** button.
+ To change the service data, use the **Volume -(LEFT)** or **Volume + (RIGHT)** button.
+ The data which is set in the service mode is stored into the memory IC automatically.

REGULAR mode



WIDE mode



Exit from the Service Mode

+ Press the **RECALL** button or turn off the TV set by using the Mains switch.

INITIALIZATION OF MEMORY IC

To initialize the memory IC (IC803), press and hold the “**NORMAL**” button on te remote control and then press the “**SERVICE**” switch on the front panel of the TV set.
When initialized the memory IC, all of the setting data (option data and service adjustment data) stored in the IC are reset to the default value. So it is necessary to set the option settings and readjust the service adjustments listed on left page.

ADJUSTMENTS

IMPOTANT NOTICE

Do not attempt to adjust the following service adjustments except requiring the readjustments in servicing otherwise it may cause loss of performance and product safety.

POWER SUPPLY CONFIRMATION

1. Receive white raster pattern.
2. Set controls to maximum and set the screen mode to “WIDE”.
3. Connect digital voltmeter to D632-C and GND.
4. Confirm that voltage is 140±1Vdc.

IF VCO ADJUSTMENT

PAL BG VCO ADJUSTMENT

1. Apply 38.9MHz signal to IF terminal on the tuner.
2. Set system mode to “S-1”.
3. Enter to the service mode and select mode “REGULAR”, item “REGULAR 1VC1”.
4. Press the volume + or - key to set data value to be “10”.

SECAM L/L’ VCO ADJUSTMENT

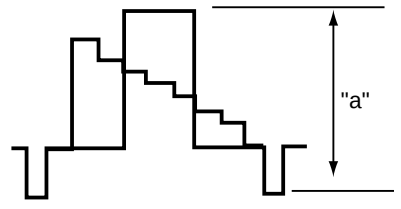
1. Apply 34.3MHz signal to IF terminal on the tuner.
2. Set system mode to “S-4”.
3. Enter to the service mode and select mode “REGULAR”, item “REGULAR 2VC2”.
4. Press the volume + or - key to set data value to be “10”.

RF-AGC ADJUSTMENT

1. Receive colour bar pattern with 63dBuV/75Ω terminated signal gain.
2. Connect digital voltmeter to TP-AGC and GND.
3. Set system mode to “S-1”.
4. Enter to the service mode and select mode “REGULAR”, item “REGULAR 3AGC”.
5. Press the volume + or - key to adjust voltage to be 3.2Vdc.

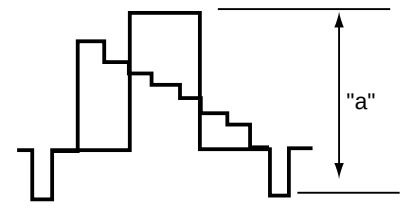
VIDEO LEVEL ADJUSTMENT

1. Receive colour bar pattern.
2. Connect oscilloscope to C155 (R175 side) and GND.
3. Adjust amplitude “a” to be 1.0Vp-p by using VR181.



Y-OUT LEVEL ADJUSTMENT

1. Receive colour bar pattern.
2. Connect oscilloscope to C7064 and GND.
3. Set controls to maximum.
3. Adjust amplitude “a” to be 1.0±0.05Vp-p by using VR7001.



SCAN PLL ADJUSTMENT

1. Receive colour bar pattern and set controls to maximum.
2. Connect oscilloscope to test point “TP-1” on the Scan converter board.
3. Adjust voltage to be 2.7±0.2Vdc by using T7201.

FOCUS ADJUSTMENT

By using FOCUS VR, adjust focus control for well defined scanning lines.

GREY SCALE ADJUSTMENT

SCREEN ADJUSTMENT

1. Select AV1 mode with no signal input.
2. Enter to the service mode and select mode “REGULAR”, item “REGULAR 4SCR”.
3. Turn the screen VR to set data value to be “11”.

GREY SCALE ADJUSTMENT

1. Receive white raster pattern.
2. Enter to the service mode and select mode “REGULAR”, item “REGULAR 5SRY”.
3. Select data value by using program up or down key, and press the volume + or - key to obtain the proper white balance.

OSD CENTRING ADJUSTMENT

1. Receive circular pattern and set screen mode to “FULL”.
2. Enter to the service mode and select mode “REGULAR”, item “REGULAR 8OSD”. The OSD test bar will appear on the top of screen.
3. Press the volume + or - key to adjust the proper OSD positioning.

VERTICAL ADJUSTMENT

VERTICAL CENTRING ADJUSTMENT

1. Receive circular pattern and set screen mode to “FULL”.
2. Enter to the service mode and select mode “WIDE”, item “WIDE 6.P V-L”.
3. Press the volume + or - key to adjust vertical centre.

VERTICAL HEIGHT ADJUSTMENT

1. Receive circular pattern and set screen mode to “FULL”.
2. Enter to the service mode and select mode “WIDE”, item “WIDE 4.P V-WA.
3. Press the volume + or - key to adjust proper vertical height.

HORIZONTAL ADJUSTMENT

HORIZONTAL CENTRING ADJUSTMENT

1. Receive circular pattern and set screen mode to “FULL”.
2. Enter to the service mode and select mode “WIDE”, item “WIDE 8.P H-P”.
3. Press the volume + or - key to adjust horizontal centre.

HORIZONTAL WIDTH ADJUSTMENT

1. Receive circular pattern and set screen mode to “FULL”.
2. Enter to the service mode and select mode “WIDE”, item “WIDE 9.P H-W”.
3. Press the volume + or - key to adjust horizontal centre.

PCC ADJUSTMENT

PCC-1 ADJUSTMENT(LINEARITY)

1. Receive cross hatch pattern and set screen mode to “FULL”.
2. Enter to the service mode and select mode “WIDE”, item “WIDE 11.P PCC”.
3. Press the volume + or - key to adjust vertical linearity.

PCC-2 ADJUSTMENT(TILT)

1. Receive circular pattern and set screen mode to “FULL”.
2. Enter to the service mode and select mode “WIDE”, item “WIDE 16.P-TRP”.
3. Press the volume + or - key to adjust the tilting of vertical lines.

HIGH-VOLTAGE CONFIRMATION

1. Receive circular pattern and set screen mode to “FULL”.
2. Connect high-voltage meter to the anode of CRT and GND.
3. Confirm that voltage is 30.5±1.0kV for 32” model.

CPU PORT FUNCTIONS

Pin No.	Function Name	Function	IN/OUT
1	MMU0		OUT
2	MMU3		OUT
3	ADDR10	Address bus 10	OUT
4	DSN		
5	ADDR11	Address bus 11	OUT
6	ADDR9	Address bus 9	OUT
7	ADDR8	Address bus 8	OUT
8	RWN		
9	GND		
10	VDD		IN
11	OSC-IN	Clock Input	IN
12	OSC-OUT	Clock Output	OUT
13	ADDR13	Address bus 13	OUT
14	ADDR14	Address bus 14	OUT
15	MMU1		OUT
16	MMU2		OUT
17	MMU4		OUT
18	MMU5		OUT
19	CSO	IIC Switch	OUT
20	ASN	IIC Switch (IIC-3)	OUT
21		IIC Switch (IIC-2)	OUT
22		IIC Switch (IIC-1)	OUT
23	INT1	IIC SDA-1	IN/OUT
24	INT2	IIC SCL-1	OUT
25	INT7	Remote Control Signal Input	IN
26	INT6	Service Switch Input On: L	IN
27	NMI	External Bus Switch Output ACK: L	OUT
28	AIN4	ASPECT S0	OUT
29		ASPECT SI	IN
30		ASPECT CLK	OUT
31	PWM7	Digital Data Input	IN
32	PWN6	Digital Data Clock	OUT
33	PWN5	Digital Data Enable	OUT
34	VDD		IN
35	GND		
36	INT5	Key Input Digital Key	IN
37	INT0	Key Input TV Key	IN
38	INT4	Sensor Input	IN
39	PWM4	Digital Data Output	OUT
40	PWM3	NIM Power On/Off Power on : L	OUT
41	PWM2	DM power On/Off Power on : L	OUT
42	PWM1	AC Relay Switch Relay on : H	OUT
43	PWM0	DM Test/Scan reset	OUT
44	FB	BLK Output for OSD	OUT
45	B	Blue Output for OSD	OUT
46	G	Green Output for OSD	OUT
47	R	Red Output for OSD	OUT
48	V-SYNC	V-Sync Input	IN
49	H-SYNC	H-Sync Input	IN
50	WSCR		

Pin No.	Function Name	Function	IN/OUT
51	WSCF		
52	VDD-A		IN
53	PXFM		
54	RESET	Reset Input	IN
55	MCFM		
56	JTRSTO		
57	TXCF		
58	CVBS0		
59	TEST0		
60	CVBS1		
61	CVBS2		
62	GND-A		
63	DAT3	Data bus 3	IN
64	DAT4	Data bus 4	IN
65	DAT5	Data bus 5	IN
66	DAT6	Data bus 6	IN
67	DAT7	Data bus 7	IN
68	DAT2	Data bus 2	IN
69	DAT1	Data bus 1	IN
70	DAT0	Data bus 0	IN
71	ADDR0	Address bus 0	OUT
72	ADDR1	Address bus 1	OUT
73	ADDR2	Address bus 2	OUT
74	ADDR3	Address bus 3	OUT
75	ADDR4	Address bus 4	OUT
76	ADDR5	Address bus 5	OUT
77	ADDR6	Address bus 6	OUT
78	ADDR7	Address bus 7	OUT
79	ADDR12	Address bus 12	OUT
80	ADDR15	Address bus 15	OUT

I/O Expander 1 (IC809)Pin Function Table (CXA1315)

Pin No.	Function Name	Function	Action	IN/OUT
1	SW1	Power failuer detection Input		IN
2	SW0	Front AV Switch	“H” Front AV “L” AV3	IN
3	DAC4	50/60hz Switch	“H” 50Hz “L” 60Hz	OUT
4	DAC3	CS Switch	“H” Normal/Natural Wide	OUT
5	DAC2	H-Size Control		OUT
6	DAC1	Naormal Switch	“H” Normal	OUT
7	DAC0	Auto-Wide Level		OUT
8	VSS			
9	SW2	VM Switch	“H”: on “L”: off	OUT
10	SW3	--		
11	A0	Chip address		OUT
12	A1	Chip Address		OUT
13	A2	Chip Address		OUT
14	SDA	IIC Bus SDA		IN/OUT
15	SCL	IIC Bus CLK		IN
16	VDD	Power Supply 9V		IN

I/O Expander 2 (IC808) Pin Function Table (PCF8574)

Pin No.	Function Name	Function	Action	IN/OUT
1	A0	Chip Address		IN
2	A1	Chip address		IN
3	A2	Chip Address		IN
4	P0	Sound Mute	“H” Mute on	OUT
5	P1	Scart AV1 Switch	“H” Active	IN
6	P2	Scart AV2 Switch	“H” Active	IN
7	P3	Scart AV3 Switch	“H” Active	IN
8	VSS			
9	P4	On-timer LED Drive	“H” On	OUT
10	P5	PAL/NTSC Switch		OUT
11	P6	3 Line Y/C Switch		OUT
12	P7	Bypass Switch		OUT
13	VDAC	Not used		
14	SCL	IIC Bus SCL		IN
15	SDA	IIC Bus SDA		IN/OUT
16	VDD	Power Supply 5V		IN

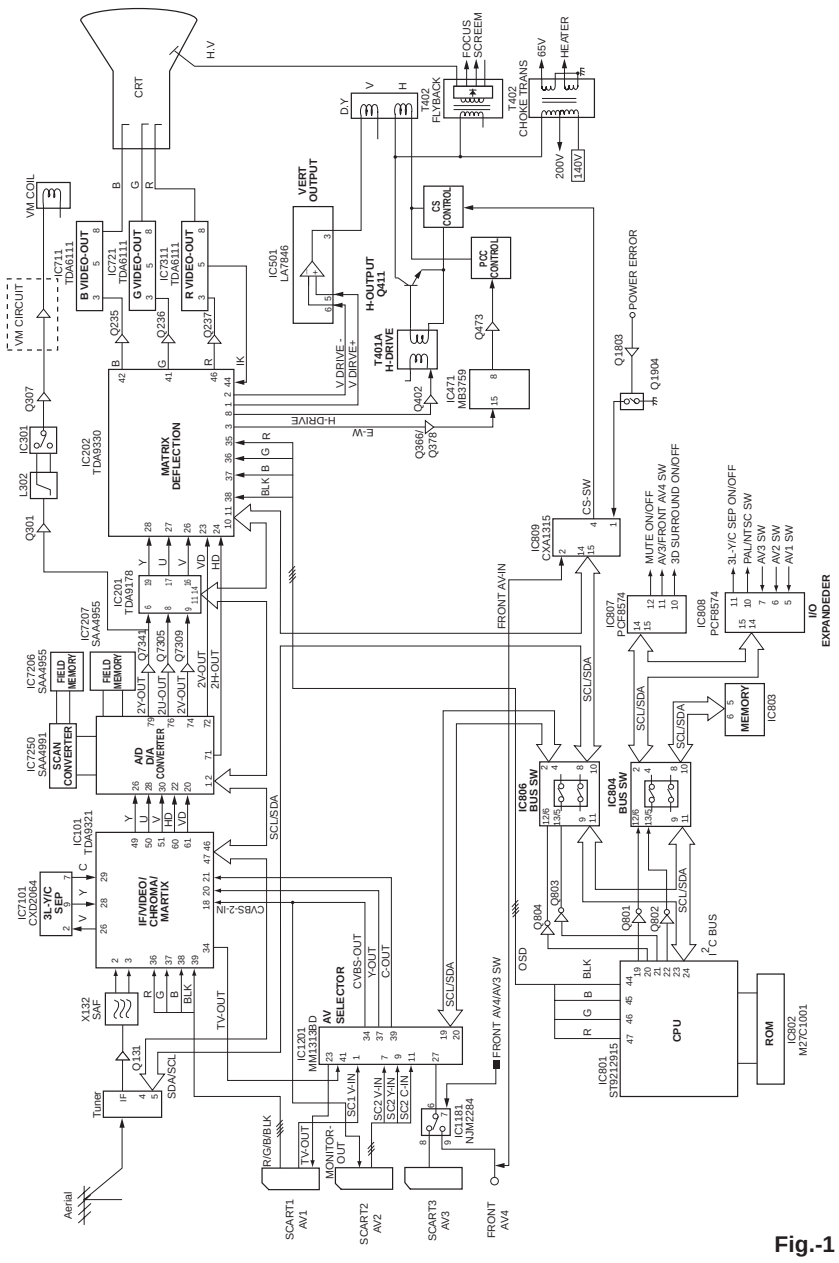
I/O Expander 3 (IC807) Pin Function Table (PCF8574)

Pin No.	Function Name	Function	Action	IN/OUT
1	A0	Chip Address		IN
2	A1	Chip address		IN
3	A2	Chip Address		IN
4	P0	Digital Power Error		IN
5	P1	DM-NIM power Error		IN
6	P2	Hold Down	“H” on	IN
7	P3	H-Blanking on/off	“H” Blanking on	IN
8	VSS			
9	P4	DSP Reset	“L” Reset	OUT
10	P5	3D Super Switch	“L” Super	OUT
11	P6	Front/Scart3 Switch	“H” Front AV	OUT
12	P7	Power On/Mute Out	“H” Power on	OUT
13	VDAC	Not used		
14	SCL	IIC Bus SCL		IN
15	SDA	IIC Bus SDA		IN/OUT
16	VDD	Power Supply 5V		IN

CHASSIS BLOCK DIAGRAMS

This is a diagram for all models and therefore differs slightly from the actual block diagram.

Outline


CRT
H.V
FOCUS SCREEM
HEATER
T402 FLYBACK
T402 CHOKE TRANS
65V
200V
140V
D.Y
V
H
VM COIL
VM CIRCUIT
IC711 TDA6111
IC721 TDA6111
IC7311 TDA6111
B VIDEO-OUT
G VIDEO-OUT
R VIDEO-OUT
Q235
Q236
Q237
VERT OUTPUT
IC501 LA7846
CS CONTROL
PCC CONTROL
H-OUTPUT Q411
T401A H-DRIVE
V.DRIVE -
V.DRIVE+
Q473
Q402
IC471 MB3759
POWER ERROR
Q1803
Q1904
H-DRIVE
E-W
Q3966
Q3781
IC301
L302
Q301
Q307
IC202 TDA9330
MATRIX DEFLECTION
IK
R
G
B
BLK
IC201 TDA9178
IC7207 SAA4955
IC7206 SAA4955
FIELD MEMORY
Q7341
Q7305
Q7309
2Y-OUT
2U-OUT
2V-OUT
2H-OUT
IC7250 SAA4991
SCAN CONVERTER
A/D D/A CONVERTER
IC101 TDA9321
IC7101 CXD2064
3L-Y/C SEP
IF/VIDEO/ CHROMA/ MARTIX
CVBS-2-IN
X132 SAF
TV-OUT
Q131
Tuner
IF
SDA/SCL
Aerial
SCL/SDA
IC1201 MM1313BD
AV SELECTOR
CVBS-OUT
Y-OUT
C-OUT
SC1 V-IN
SC2 V-IN
SC2 C-IN
IC1181 NJM2284
R/G/B/BLK
TV-OUT
MONITOR-OUT
FRONT AV4/AV3 SW
SCART1 AV1
SCART2 AV2
SCART3 AV3
FRONT AV4
IC809 PCF8574
IC808 PCF8574
I/O EXPANDEER
MUTE ON/OFF
AV3/FRONT AV4 SW
3D SURROUND ON/OFF
3L-Y/C SEP ON/OFF
PAL/NTSC SW
AV3 SW
AV2 SW
AV1 SW
IC809
MEMORY
IC808
IC806 BUS SW
IC804 BUS SW
I²C BUS
IC807 PCF8574
MUTE
Q001
IC809 I/O EXPANDER
IC808 I/O EXPANDER
IC809
IC808
IC809
IC808
IC809
IC808